Aah93642 Human pro Aab63734 Human pro Aah02707 Prostate Aah84956 Human pro Aca59543 Proetate Ab195106 Human P8D Acc95270 Proetate Ad513743 Human pro Ad226159 Human pro	Abv07484 Human pro Abv37417 Human pro Ab164736 Lung canc Ab165652 Lung canc Adc92238 E. faeciu Aaz33468 Human pro Aaz42062 Human end Abs57323 cDNA enco Ab128364 Drosophil Adp64619 DNA of hu Adb63189 Human cDN	Aaf29360 Amyloid-b Aaf3907 Human cDN Acc50169 Breast ca Adb75331 Prostate Add1842 Human pro Aah14672 Human cDN Aac64559 Human pro Adp64620 DNA of hu	Abd9960b Human cod Add940b Human cod Ad171482 Novel hum Abv25476 Human pro Abz35869 Human sec Ad71105 Human met Continuation (5 of Aah1546 Human rep Ab19789 Human rep Ab19789 Human res Ab19789 Human res Ab57881 E. coli C Ad80418 Escherich Abx06574 S. pneumo	Add20311 Streptoco Aav52185 Streptoco Continuation (5 of Aaa26920 Essential Aaf91602 Staphyloc Aa60449 Antibacte Add67449 Antibacte Add7473 Mutant ba	Aba55917 Human fee Aba25593 Probe #40 Aba2593 Probe #40 Aba2949 Human niv Abs04169 Human gen Abz58100 Mouse inh Aav55042 Murine HI Aav74516 Staphyloc Acf74645 Staphyloc Adf2202 Staphyloc Add2202 Staphyloc Add2202 Staphyloc Add7205 Staphyloc Add7393 S. suis A Add7393 S. suis A Add7939 S. suis A Adv7939 Staphyloc Acc79383 Mouse bST Add30447 DNA encod Acc79383 Mouse bST Add30447 DNA encod Acc61275 Gene sequ
29.8 21.4 301 4 29.8 21.4 301 4 29.8 21.4 301 4 29.8 21.4 301 6 29.8 21.4 301 6 29.8 21.4 301 8 29.8 21.4 301 10	29.8 21.4 340.5 29.8 21.4 492 6 29.8 21.4 492 6 29.8 21.4 140 10 29.8 21.4 1448 2 29.8 21.4 2144 2 29.8 21.4 2654 6 29.8 21.4 2664 6 29.8 21.4 2840 12	29.8 21.4 3017 5 29.8 21.4 3017 5 29.8 21.4 3042 8 29.8 21.4 3042 10 29.8 21.4 3045 4 29.8 21.4 3045 4 29.8 21.4 3079 12	8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	54. 25.2 21.0 3000 4 66. 29.2 21.0 16593 2 67. 29.2 21.0 16593 2 68. 29 20.9 3010 3 69. 29 20.9 3010 4 70 29 20.9 3010 4 71 29 20.9 3010 10	485 4 485 6 4 485 6 4 485 6 4 485 6 4 485 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
GenCore version 5.1.6 eyright (c) 1993 - 2004 Compugen Ltd. search, using sw model aber 21, 2004, 22:16:05; Search time 1037 Seconds	703.635 Million cell updates/sec US-10-070-882A-2 139 1 gtgactctggtcgacgaact	<pre>iits satisfying chosen parameters: 8269772 ingth: 0 ingth: 2000000000 Minimum Match 0* Maximum Match 100* Listing first 100 summaries</pre>	Geneseq_23Sep04:* geneseqn1990s:* geneseqn2001as:* geneseqn2001as:* geneseqn2001as:* geneseqn2002as:* geneseqn2003as:* geneseqn203as:* geneseqn203as:* geneseqn203as:* geneseqn203as:*	io. is the number of results predicted by chance to have a react than or equal to the score of the result being printed, derived by analysis of the total score distribution. SUMMARIES Query Match Length DB ID Description	Adel 2356 Salmonell Adel 2356 Salmonell Adel 2356 Salmonell ADG31136 Salmonell ACA9482 PROKATYCH SECRET SCREEN SACRA9482 PROKATYCH SCREEN SCREEN SACRA9482 PROKATYCH SCREEN SCRE
Coj OM nucleic - nucleic Run on: Decer	Title: Perfect score: 139 Sequence: Coring table: IDER Gapc Searched: 4134	Total number of hits sa Minimum DB seq length: Maximum DB seq length: Post-processing: Minim Listir	Database : N.C. 2: 2: 2: 3: 3: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4:	Pred. No. is the score greater the and is derived k and is cerived k kesult Guery No. Score Match	1 139 100 2 139 100 3 40 28 4 4 37.2 26 6 7 31 222 6 7 31 222 6 10 30.8 222 6 10 30.8 222 6 11 30.6 222 7 13 30.6 222 6 14 30.4 21 7 18 30.4 21 7 18 30.4 21 7 20 30 22 7 20 30 22 7 20 20 30 22 7 20 20 20 20

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Aaz96363 S. pheumo
Aad20313 Streptoco
Ade58284 Human gen
Aaq4424 ADA2 DNA.
Add29639 Mouse tum
Aav43009 Streptoco
                        AAQ42424
ADD29639
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c 95
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c 100
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typhimurium; phoP gene promoter; PphoP; antibacterial;
                                                                                    antiviral; vaccine; lacz; pagC; outer membrane porin C; ompC; transgenic microorganism; antigen production; antigen delivery; infection; ds.
                                                                      Salmonella typhimurium phoP gene promoter.
ALIGNMENTS
                                BP.
                                                                                                                                                                           12-JUL-2000; 2000GB-00017000.
                                                                                                                                                        06-SEP-2000; 2000WO-GB003402
                               AAF82356 standard; DNA; 139
                                                                                                                                                                                         (MINA ) UK SEC FOR DEFENCE.
                                                                                                                                                                                                      Titball RW, Bullifent HL;
                                                         (first entry)
                                                                                                                  Salmonella typhimurium,
                                                                                                                                                                                                                   WPI; 2001-328017/34.
                                                                                                                               WO200119974-A2
                                                                                                                                                                      10-SEP-1999;
                                                         22-JUN-2001
                                                                                                                                            22-MAR-2001
                                                                                   Salmonella
                                            AAF82356;
                          AAF8235
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New recombinant gut-colonizing microorganism, useful as vaccine component, comprises construct containing phoP, pagC or ompC gene promoter linked to nucleic acid encoding protein that induces immune response against pathogen.

Claim 1; Fig 6; 33pp; English.

The present sequence is a DNA fragment comprising the phop gene promoter. DNA fragments comprising the Salmonella typhimurium phop, page and ompore gene promoters were integrated into a vector used to transform a recombinant gut-colonising microorganism. The promoter was operably linked to a nucleic acid encoding a protein that is able to induce a protective immune response against an organism in a mammal. The construct is useful for enhancing expression of a desired protein at mucosal effector sites. It is useful for delivering a variety of antigenic agents which can be used to induce a protective immune response against a wide cange of pathogens such as Bacillus anthracis, Bordetella pertussis, Schistoma mansoni, herpes simplex virus, and Mycobacterium tuberculosis. The three promoters (P(phoP), P(pagC) and P(ompC)) are induced at inflerent stages in the infection process, and hence at different sites in the body. This approach allows the induction of different immune responses which provide protection against pathogens which colonise different host cell compartments. The Salmonlalla vaccine vector system is ideally suited to the delivery of many vaccine antigens since the vaccine delivery mechanism accurately mimics the natural disease, entering the

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Sequence 139 BP; 37 A; 33 C; 23 G; 46 T; 0 U; 0 Other;
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                                                                                                                     61 GIGACTATTIGICIGGITTATTAACIGITTATCCCCAAAGCACCATAAICAACGCTAGAC 120
                                                                                                                                                   61 GrgActArtrgrcrdGrrtArtAActGrrtArccccAAAGCACATAArCAACGCTAGAC 120
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                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a novel live attenuated derivative of a pathogenic Enterobacteriaceae species having enhanced ability to induce cross protective immunity against Enterobacteriaceae. The derivative of the invention demonstrates antibacterial and immunostimulant activities and may be useful as a vaccine for inducing a high level immune response and/or cross protective immune response to protect individuals from infection from a diversity of species or serotypes of bacterial pathogens. The current sequence is that of the Salmonella typhimurium PphoPQ and phoPQ operon DNA of the invention.
                                                                                  1 Gréacricrégrégacitraarraargécréccréacitriririririsagaaage
                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New live attenuated derivative of a pathogenic Enterobacteriaceae species, useful as a vaccine for inducing cross protective immunity against infections caused by various Enterobacteriaceae strains or
                                                                                                                                                                                                                                                                                                                                                                                                                                           live attenuated derivative; pathogenic Enterobacteriaceae; cross protective immunity; antibacterial; immunostimulant; vaccine; PphoPQ; promoter; phoPQ operon; ds; gene.
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                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                          Salmonella typhimurium PphoPQ and phoPQ operon DNA.
100.0%; Pred. No. 5.6e-36; ive 0; Mismatches 0;
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2002US-0373626P.
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                 Matches 139; Conservative
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Les 139; Conservative
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Best Local Similarity
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18-APR-2002;
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                                                                                                                                                                                                                                                                                                                                          ADG31136;
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511 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGG 570
                                                          GIGACTATTIGICIGGITIATIAACIGITIAICCCCAAAGCACCAIAAICAACGCIAGAC 120
                                                                                     GEGACTATITGICIGGITTATTAACTGITTATCCCCAAAGCACCATAATCAACGCTAGAC 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag= b
/note= "5' overhang on complementary strand of 4 bases
with sequence 5'-GATC-3'"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Composition comprising microbe having attenuating mutation that cominsertion sequence containing recombinant transcription terminator, useful as vaccine, and for delivering a desired gene product to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antibacterial; fungicide; antiparasitic; protozoacide; phoA; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Transcription terminator; trpA; attenuation; vaccine; virucide
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/note= "5' single-stranded overhang"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Escherichia coli DNA 5' to phoA coding region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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                                                                                                                                                                           TGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                             631 TGTTCTTATTGTTAACACA 649
                                                                                                                                                                                                                                                                                                                                                                                      ABL57265 standard; DNA; 41 BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200230457-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-AUG-2002
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(CURT/)
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The present sequence is that of DNA located 5' to the phoA coding sequence of Escherichia coli. The sequence was used to illustrate an example of the invention relating to deletion of the phoA gene and replacement with a trpA terminator. The phoA mutation was introduced into Salmonella typhimurium S1.1344 to produce strain MGN-1362. The present invention is based on the discovery that transcription terminators (TTS) can be inserted in a bacterial gene in an attenuating strategy which not restrict the effect of the attenuating mutation to the target gene or opperon of the bacteria. A claimed vaccine comprises a microorganism having an attenuating mutation in a chromosomal gene, the mutation comprises an attenuation sequence which contains a recombinant TT, such as Escherichia, and the TT is preferably Salmonella, Shigella or The

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The invention relates to an isolated nucleic acid comprising any one of the 6213 antisense sequences given in the specification where expression of the nucleic acid inhibites proliferation of a cell. Also included are:

(1) a vector comprising a promoter operably linked to the nucleic acid encoding a polypeptide whose expression is inhibited by the antisense nucleic acid; (2) a host cell containing the vector; (3) an isolated polypeptide or its fragment whose expression is inhibited by the antisense nucleic acid; (4) an antibody capable of specifically binding the polypeptide; (5) inhibiting cellular proliferation or the activity of a gene in an operon required for proliferation, (7) identifying a compound that influences the activity of the gene product or that has an activity against a biological pathway the gene product or that has an activity against a biological pathway crequired for proliferation, or that inhibits cellular proliferation; (8) identifying a gene required for cellular proliferation or the biological pathway in which a proliferation-required gene or its gene product lies
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New antisense nucleic acids, useful for identifying proteins or screening for homologous nucleic acids required for cellular proliferation to isolate candidate molecules for rational drug discovery programs.
vaccine may further comprise a recombinant gene encoding a desired gene product from a virus, bacterium, protozoan, parasite or fungus, or encodes an autoantigen, gamete-specific antigen or an allergen. The attenuated microorganism is also used in a claimed method for delivering a desired gene product to an individual
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zyskind JW;
Xu HH;
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Forsyth RA,
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                                                                                                         Sequence 41 BP; 10 A; 13 C; 4 G; 14 T; 0 U; 0 Other;
                                                                                                                                                                                                                                    1 TCGACGAACTTAAATAATGCCTGCCTCACCTTTTTCTT
                                                                                                                                                                                                                11 TCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTT
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Yamamoto R,
                                                                                                                                 28.8%; Sco...
100.0%; Pred. No. c...
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prokaryotic essential gene #31139.
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Carr GJ,
                                                                                                                                                                                                                                                                                                                                          ACA49482 standard; DNA; 1385 BP
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06-SEP-2001; 2001US-00948993.
25-OCT-2001; 2001US-0342923P.
08-FEB-2002; 2002US-00072851.
06-MAR-2002; 2002US-0362699P.
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                                                                                                                                                                                 40; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Salmonella paratyphi.
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Trawick JD,
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                                                                                                                                             Query Match
Best Local Similarity
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organism acts, (9) manufacturing an antibiotic; (10) profiling a compound's activity; (11) a culture comprising strains in which the gene product is overexpressed or (12) determining the extent to which each of the strains is present in a culture or collection of strains; or (13) identifying the target of a compound that inhibits the proliferation of an organism. The antisense nucleic acids are useful for identifying proteins or screening for homologous nucleic acids required for cellular proliferation to isolate candidate molecules for rational discovery programs, or for screening homologous nucleic acids required for proliferation in cells other than S. aureus, S. typhimurium, K. pneumoniae or P. aeruginosa. The present sequence is one of the target prokeryotic essential genes. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from MIPO at
         proliferation of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1385 BP; 353 A; 372 C; 335 G; 321 T; 0 U; 4 Other;
         compound that inhibits
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Gaps ; 0 26.8%; Score 37.2; DB 8; Length 1385; 92.9%; Pred. No. 0.048; ive 0; Mismatches 3; Indels 0; 3; Indels GTGACTCTGGTCGACGAACTTAAATAATGTGCCTCACCCT 1385 1 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCT 42 Query Match
Best Local Similarity 92.9 1344 8 셤

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ADE87477 RESULT

ADE87477 standard; DNA; 266145

ADE87477;

(first entry) 29-JAN-2004

Fowlpox virus genome DNA.

fowlpox virus; PPV; virucide; tuberculostatic; protozoacide; antipyretic; cytostatic; hepatotropic; antibacterial; vaccine; malaria; tuberculosis; East Coast fever; avipox virus; influenza; hepatitis; human papilloma virus; tumour; leishmaniasis; listeriosis; theileria; qene; ds.

Fowlpox virus.

WO2003047617-A2.

.2-JUN-2003

02-DEC-2002; 2002WO-GB005411.

30-NOV-2001; 2001GB-00028733.

(ISIS-) ISIS INNOVATION LTD

Gilbert S, Hill A, Laidlaw S, Skinner M,

Anderson R;

WPI; 2003-513700/48.

Treating and/or preventing e.g. malaria or tuberculosis, or eliciting an immune response, comprises administering a priming composition and a boosting composition containing a non-replicating viral vector in either order.

Claim 30; SEQ ID NO 1; 302pp; English.

The invention relates to a fowlpox virus (FPV) genome which has modifications in one or more wild-type FPV genes. The invention further relates to a novel method for treating and/or preventing a disease in a subject comprising administering two compositions, each containing a nonreplicating viral vector. At least one of the compositions comprises a

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21181 AGTTACTTATAGATATATTTAATATCTTATCGACGAAGGACGAAGATCCATGGTATGTG 21240
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                                              the following activities: virucide, tuberculostatic, protozoacide, antipyretic, cytostatic, hepatotropic, and antibacterial. The nonreplicating viral vector is useful in a vaccine for an animal, particularly a mammal such as a primate, specifically human. The priming or boosting composition, or the kit is useful for manufacturing a medicament for treating and/or preventing a disease which is, or results from, a chronic infection such as malaria, tuberculosis or East Coast fever, or for eliciting a T-cell immune response in a subject. Noncultured CEF cells are useful for growing an avipox virus, such as fowlpox virus. The method or the vaccine may further be used to treat or prevent influenza, hepatitis, human papilloma virus and other viral infections, malignancies such as tumours, leishmaniasis, listeriosis, and theileria. This polynucleotide sequence represents the DNA of the fowlpox virus genome of the invention.
     vector derived from a fowlpox virus. The novel compositions have
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 23.5%; Score 32.6; DB 10; Similarity 55.9%; Pred. No. 7; 62; Conservative 0; Mismatches 49;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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Matches
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ABQ72598 standard; cDNA; 772 (first entry) 03-SEP-2002 ABQ72598;

ВЪ

Human MDDT encoding cDNA SEQ ID NO 150.

Human, MDDT, disease detection and treatment molecule polynucleotide, proliferative disorder; hepatitis, psoriasis, cancer; AIDS, autoimmune disorder; inflammatory disorder; allergy; multiple sclerosis, rheumatoid arthritis, transgenic; gene therapy; antiarteriosclerotic; hepatocropic, antiinflammatory; antipsoriatic; cytostatic; anti-HIV; antiallergic; antianaemic; antiasthmatic; antiatherosclerotic; antigout; neuroprotective; antirheumatic; antiarthritic; gene; ss.

Homo sapiens.

WO200240715-A2.

23-MAY-2002.

06-SEP-2001; 2001WO-US027628

2000US-0229747P

05-SEP-2000;

2000US-0229748P. 2000US-0229749P. 2000US-0229750P. 2000US-0229751P. 2000US-0230583P. 2000US-0230505P. 05-SEP-2000; 205-SEP-2000; 206-SEP-2000; 206 05-SEP-2000;

2000US-0230514P. 2000US-0230515P. 2000US-0230518P. 2000US-0230519P. 2000US-0230517P 06-SEP-2000; 06-SEP-2000; 06-SEP-2000; 06-SEP-2000;

06-SEP-2000;

00US-0230595P 2000US-0230597P 2000US-0230599P 06-SEP-2000; 06-SEP-2000; us-10-070-882a-2.rng

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The invention relates to an isolated human disease detection and treatment (MDDT) polypeptide (I) selected from a polypeptide having a sequence selected from 254 sequences (ABP5121-ABP51484) given in the sequence selected from 254 sequences (ABP5121-ABP51484) given in the abpecification, a naturally occurring polypeptide comprising a sequence thaving at least 90% identity to (I) or a biologically active or immunogenic fragment of (I). (I) is useful for screening a compound for effectiveness as an agonist to rantagonist, for screening a compound that specifically binds (I) or modulates the activity of (I), and for preparing a polyclonal or monoclonal antibody by hybridoma technology.

Compound for effectiveness in altering expression of a target screening a compound for effectiveness in altering expression of a target polymucleotide comprising. Oligonucleotides and antibodies are useful for screening a compound, in a sample or for assessing toxicity of a test compound, in a diagnostic test for a condition or a disease associated with the expression of MDDT in a biological sample, for detecting (I) in a sample, and for purifying (I) from a sample. A composition comprising (I), an associated with aberrant expression of MDDT, where the disorders are selected from a cell proliferative disorder such as arteriosclerosis, cirrhosis, hepatitis, psoriasis, and cancer and an autoimnum. Inflammatory disorder such as AIDS, Addison's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 allergy, anaemia, asthm, atherosclerosis, gout, multiple sclerosis or rheumatoid arthritis. (II) are useful for creating knockin humanised animals or transgenic animals to model human diseases, in somatic or germline gene therapy, to generate a transcript image of a tissue or cell type, for detecting differences in the chromosomal location due to translocation or inversion among normal, carrier or affected individuals and as hybridisation probes for mapping naturally occurring genomic
                                                                                                                                                                                                                                    ncoln SE, Altus CM, Dufour GE, Chalup MS;
nnes AL, Yu JY, Wright RJ, Gietzen D, Liu TF, Yap PE;
man MG, Bradley DL, Rohatgi SD, Harris B;
Gerstin EH, Peralta CH, David MH, Panzer SR, Flores V;
tha R, Chen AJ, Chang SC, Au AP, Inman RR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel human disease detection and treatment polypeptide, useful in diagnosis, prevention or treatment of cell proliferative disorders e.g. arteriosclerosis, cirrhosis and an autoimmune/inflammatory disorder e.g.
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06-SEP-2000; 2000US-0230610P.

06-SEP-2000; 2000US-023086SP.

06-SEP-2000; 2000US-0230988P.

06-SEP-2000; 2000US-0230951P.

07-SEP-2000; 2000US-0231951P.

07-SEP-2000; 2000US-0231163P.
                                                                                                                                                                                        (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                                                                                         Lincoln SE,
                                                                                                                                                                                                                                                                Hillman JL, Jones AL,
Dahl CR, Momiyama MG,
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Gaps . 0 Sequence 772 BP; 252 A; 147 C; 156 G; 217 T; 0 U; 0 Other; 22.3%; Score 31; DB 6; Length 772; 57.9%; Pred. No. 4.5; 40; Indels 0; Mismatches 55; Conservative Local Similarity Query Match Matches

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TITCTICAGAAAGAGGGTGACTAITIGICTGGTTTAITAACTGTTTAICCCCAAAGCACC 104
                                     TTCCAATAAAAAAAGTCCTCCATTTAGTTTTATTTTATCACAGTTTTGTCCAAAAAGGGGCT 490
                                                                                                                           105 ATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
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489 TICIGIAAIGCIAGAAAICTCICICAGIGICAACACA 455

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proliferative disorder; hepatitis; psoriasis; cancer; AIDS; autoimmune disorder; inflammatory disorder; allergy; multiple sclerosis; rheumatoid arthritis; transgenic; gene therapy; antiarteriosclerotic; hepatotropic; antiinflammatory; antipsoriati; cytostatic; anti-HIV; antiallergic; antianaemic; antiasthmatic; antiatherosclerotic; antigout; neuroprotective; antirheumatic; antiatthritic; gene; ss.
                                                                              disease detection and treatment molecule polynucleotide;
                                                            Human MDDT encoding cDNA SEQ ID NO 237.
        ABQ72685 standard; cDNA; 810 BP
                                                                                                                                                                                                                                2000US-0229748P
2000US-0229749P
2000US-0229751P
2000US-0239751P
200US-0230583P
200US-0230555P
2000US-0230514P
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2000US-0230519P.
2000US-0230519P.
2000US-023059P.
2000US-023059P.
2000US-023059P.
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                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0231167P
                                           entry)
                                           (first
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06-SEP-2000;
06-SEP-2000;
                                                                                                                                                    Homo sapiens.
                                                                              Human; MDDT;
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                                           03-SEP-2002
                                                                                                                                                                                       23-MAY-2002
                          ABQ72685;
ABQ72685/c
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(INCY-) INCYTE GENOMICS INC.

Flores V; Liu TF, Yu JY, Wright RJ, Gietzen D, Liu TF, Bradley DL, Rohatgi SD, Harris B; n EH, Peralta CH, David MH, Panzer SR, Chen AJ, Chang SC, Au AP, Inman RR; Chalup MS; Altus CM, Dufour GE, Chalup Jackson S, Lincoln SE, Gerstin Jones AL, Momiyama MG, Marwaha R, Roseberry AM, Hillman JL, ಕ ಕ Daffo A, Dahl

WPI; 2002-527544/56. P-PSDB; ABP51469.

Novel human disease detection and treatment polypeptide, useful in diagnosis, prevention or treatment of cell proliferative disorders e.g. arteriosclerosis, cirrhosis and an autoimmune/inflammatory disorder e.g.

Claim 1; Page 435; 618pp; English.

The invention relates to an isolated human disease detection and treatment (MDDT) polypeptide (I) selected from a polypeptide having a sequence selected from 254 sequences (ABP5121)-ABP514819 given in the specification, a naturally occurring polypeptide comprising a sequence having at least 90% identity to (I) or a biologically active or

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14-SEP-2000;
              c immunogenic fragment of (I). (I) is useful for screening a compound for effectiveness as an agonist or antagonist, for screening a compound that specifically binds (I) or modulates the activity of (I), and for preparing a polyclonal or monoclonal antibody by hybridoma technology.

Nucleic acids (II) (ABQ72449-ABQ72700) encoding (I) are useful for screening a compound for effectiveness in altering expression of a target polymuclectide comprising. Oligonucleotides and antibodies are useful for detecting MDDT in a sample or for assessing toxicity of a test compound, or a diagnostic test for a condition or a disease associated with the expression of MDDT in a biological sample, for detecting (I), an asample, or and for puritying (I) from a sample, A composition comprising (I), an associated with decreased or increased expression of functional MDDT. (I) or (II) are useful for diagnosing, treating a disease or condition associated with aberrant expression of MDDT, where the disorders are associated with aberrant expression of MDDT, where the disorders are allocated from a cell proliferative disorder such as arteriosclerosis, cirrhosis, hepatitis, psoriasis, and cancer and an autoimmune/inflammatory disorder such as AIDS, Addison's disease, allocation are thereased as thereosclerosis, or theumatoid arthritis. (II) are useful for creating knockin humanised animals or transgenic animals to model human diseases, in somatic or two for detecting difference of transcript image of a transcript or cell transcript or cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITCTICAGAAAGAGGGTGACTATITGTCTGGTTTATTAACTGTTTATCCCCCAAAGCACC 104
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                                                                                                                                                                                                                                                                                                                                                                                                              inversion among normal, carrier or affected individuals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immune/haematopoietic antigen genomic sequence SEQ ID NO:36005.
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                                                                                                                                                                                                                                                                                                                                                                          germline gene therapy, to generate a transcript image of a tissue of type, for detecting differences in the chromosomal location due to translocation or inversion among normal, carrier or affected indivi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 810 BP; 262 A; 153 C; 165 G; 230 T; 0 U; 0 Other;
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Pred. No. 4.6;
0; Mismatches 40; Indels
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04-FEB-2000; 2000US-0180658P.
24-FEB-2000; 2000US-018645P.
02-MAR-2000; 2000US-018974P.
17-MAR-2000; 2000US-018974P.
18-APR-2000; 2000US-019076P.
19-MAY-2000; 2000US-02054FP.
19-MAY-2000; 2000US-020551SP.
07-UJN-2000; 2000US-020551SP.
28-UUN-2000; 2000US-020551SP.
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Best Local Similarity 57.9°
Matches 55; Conservative
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2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
2000US-0224519P.
2000US-0224519P.
2000US-0225213P.
2000US-0225214P.
2000US-022526P.
2000US-022526P.
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Barash SC, Ruben SM,
20-OCT-2000; 2000US-0241787P.
20-OCT-2000; 2000US-0241808P.
20-OCT-2000; 2000US-0241808P.
20-OCT-2000; 2000US-0241808P.
01-NOV-2000; 2000US-024647P.
08-NOV-2000; 2000US-024647P.
08-NOV-2000; 2000US-024647P.
08-NOV-2000; 2000US-024647P.
08-NOV-2000; 2000US-024647P.
08-NOV-2000; 2000US-024652P.
08-NOV-2000; 2000US-024651P.
08-NOV-2000; 2000US-024661P.
08-NOV-2000; 2000US-02461P.
08-NOV-2000; 2000US-024920P.
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17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249215P.
17-NOV-2000; 2000US-0249217P.
17-NOV-2000; 2000US-0249217P.
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08-DEC-2000; 2000US-025186P.
08-DEC-2000; 2000US-025186P.
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05-DEC-2000; 2000US-0251988P.
05-DEC-2000; 2000US-0256719P.
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17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
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08-DEC-2000
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Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.

Disclosure; SEQ ID NO 36005; 3071pp + Sequence Listing; English

AAKS4951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a parient's genome that affect the activity of (I) by expressing inactive proteins or to

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supplement the patients own production of (I). Additionally, (I) polynuclectides may be used to produce the secreted (I), by inserting the uncleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynuclectides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK5492 to AAK545950 and AAM82169 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; secreted protein; cancer; hyperproliferative disorder; rheumatoid arthritis; autoimmune disorder; haematopoietic disorder; anaemia; allergic reaction; asthma; cardiovascular disorder; wound healing; cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; vulnerary; cardiant; gene therapy; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to novel genes ADA39629-ADA40565 and proteins ADA40566-ADA41501 for human secreted proteins, useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The polypeptides, nucleid molecules, antibodies or their fragments, and agonists or antegonists that bind to the polypeptide are useful for preparing a diagnostic or pharmaceutical composition for
                                                                                                                                                                                                                                                                                                                                              1 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGG
                                                                                                                                                                                                                                                                                                                                                                                     1311 GTAACTCTGGGCAACTTACATAAACTCTGTGCCTCAGCTTCTGCACCTGAGAAAGGG
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                                                                                                                                                                                                                Sequence 19521 BP; 5672 A; 3465 C; 3902 G; 6482 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                    Query Match 22.2%; Score 30.8; DB 4; Length 19521; Best Local Similarity 63.5%; Pred. No. 13; Matches 47; Conservative 0; Mismatches 27; Indels 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human secreted protein related DNA
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19-JUL-2001; 2001US-0306171P.
13-NOV-2001; 2001US-0331287P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                               61 GIGACTATITGICT 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-175238/17.
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diagnosing or treating cancer or other hyperproliferative disorder. The polypeptides and nucleic acid molecules are also useful for detecting, or preventing, diagnosing, prognosticating, treating or ameliorating cancer or other hyperproliferative disorders including neoplasms, autoimmune disorders (e.g. diabetes, rheumatoder atthritis, systemic lupus atthreatebas, multiple sclerosis, autoimmune thyroiditis or haemolytic anaemia), haematopoietic or haematological disorders (e.g. anaemia, thrombocytopenia), allergic reactions including asthma or eczema, thrombocytopenia), allergic reactions including asthma or eczema, thrombocytopenia, allergic reactions including asthma or eczema, confirmatory disorders (e.g. inchaemia-reperfusion injury, inflammatory bowel disease or Crohn's disease), neurodegenerative disorders (e.g. Alzheimer's disease or Parkinson's disease), cardiovascular disorders (e.g. atherosclerosis, myocarditis), infectious diseases (bacterial, fungal or viral infections including HIVAIDS), or wound healing and disorders of epithelial cell proliferation. The nucleic acids are also useful for chromosome identification, radiation hybrid markers, or as choreful for providing immunological probes for differential identification of this manual manual identification of the printing specification probes. The polypeptides and antibodies are useful for providing immunological probes The sequences given in ADA40803-ADA41665 represent DNA sequences related to human secreted proteins. Note: The sequence data for this patent did not form part of form part of form with a the manual part of incoming the patent did not form part of form with a part of form with a contraction with the patent and incoming the patent did not form part of form with the form wi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the printed specification, but was obtained in electron from WIPO at ftp.wipo.int/pub/published_pct_sequences.
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GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGG Gaps Sequence 19521 BP; 5672 A; 3465 C; 3902 G; 6482 T; 0 U; 0 Other; ; 0 DB 8; Length 19521; ch 22.2%; Score 30.8; DB 8; Length 19 1 Similarity 63.5%; Pred. No. 13; 47; Conservative 0; Mismatches 27; Indels 74 61 GTGACTATTTGTCT Query Match Best Local Similarity Matches 셤

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1251 CTAACAATTCCTAT 1238 ద à

ADA57769 standard; DNA; 19521 BP. ADA57769; ADA57769,

(first entry) 20-NOV-2003

BAC fragment containing human secreted protein gene #505.

cytostatic; cerebroprotective; neuroprotective; nootropic; cardiovascular; antiatreriosclerotic; gene therapy; human secreted protein; immune disorder; inflammation; respiratory disorder; cancer; CNS disorder; neurodegenerative disorders; inflammatory bowel disease; nephritis; Crohn's disease; asthma; allergy; multiple sclerosis; ischaemic brain injury; Parkinson's disease; Alzheimer's disease; atherosclerosis; myocarditis; chromosome mapping; triple helix formation; antisense gene therapy; forensic biology; ds; immunosuppressive; antiinflammatory; antiasthmatic; antiallergic; bacterial artificial chromosome gene;

Homo sapiens

WO2002102994-A2.

27-DEC-2002

19-MAR-2002; 2002WO-US008278.

21-MAR-2001; 2001US-0277340P. 19-JUL-2001; 2001US-0306171P. 13-NOV-2001; 2001US-0331287P.

(HUMA-) HUMAN GENOME SCI INC

Ruben SM; Rosen CA,

WPI; 2003-167512/16

New human secreted polypeptides and polynucleotides, useful for diagnosing, treating or preventing e.g. immune disorders, inflammatory conditions, respiratory disorders, cancers, CNS disorders, or neurodegenerative disorders.

Disclosure; SEQ ID NO 1962; 1754pp; English.

diagnosing, treating or preventing e.g. immune disorders, inflammatory conditions, respiratory disorders, cancers, CNS disorders, or neurodegenerative disorders, cancers. CNS disorders, or neurodegenerative disorders, cancers. CNS disorders, or neurodegenerative disorders, or polypeptides comprising an amino acid sequence at least 95% identical to the new sequences. The polypeptides, acids encoding the polypeptides, agonists or antagonists that binds to caids encoding the polypeptides, agonists or antagonists that binds to the polypeptide, are useful in preparing diagnostic or pharmaceutical compositions for diagnosing, treating or preventing an e.g. immune compositions for diagnosing, treating or preventing an e.g. immune compositions for disorders (e.g. gastric, ovarian or lung cancer), CNS disorders (e.g. gastric, ovarian or lung cancer), CNS disorders (e.g. gastric, ovarian or lung cancer), and altergy, cancers (e.g. gastric, ovarian or lung cancer), and cardiovascular disorders (e.g. atherosclerosis or myocarditis). The disorders (e.g. parkinson's disease or Alzheimer's disease), and cardiovascular disorders (e.g. atherosclerosis or myocarditis). The polymucleotides are useful for chromosome identification, chromosome controlling gene expression through triple helix formation or antisease DNA or RNA, in gene therapy, for identifying individuals for a minute biological samples, in forensic biology, and as hybridization probes. The polypeptides are useful for as molecular weight markers on sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) conscoular, reproductive, gastrointestinal, pulmine system disorders, muscular, reproductive, gastrointestinal, pulmine system disorders, contesponds to a bacterial artificial chromosome (BAC) fragment containing the gene encoding one of the polypeptides of the invention. Note: The sequence corresponds to be after this patent did form part of the printed specification, but was encoding one of the polypeptides or the invention of the specific or the sequen The invention relates to 592 new human secreted polypeptides useful for ftp.wipo.int/pub/published_pct_sequences.

Sequence 19521 BP; 5672 A; 3465 C; 3902 G; 6482 T; 0 U; 0 Other;

DB 10; Length 19521; 27; Indels Score 30.8; DB Pred. No. 13; 0; Mismatches 22.2%; 47; Conservative Query Match Best Local Similarity Matches

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1311 GTAACTCTGGGCAACTTACATAAACTCTCTGTGCCTCAGCTTCTGCACCTGAGAAAAGGG 1252 9 1 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGG ð g

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ACA02032 standard; DNA; 1539 BP. RESULT 11 ACA02032

(first entry) 04-JUN-2003

ACA02032;

C. glutamicum derived ORF SEQ ID 2023

Coryneform; nucleic acid array; fermentation; culture; ds.

Corynebacterium glutamicum.

DE10128510-A1

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The present invention provides a number of nucleotide and protein sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Coryneform bacteria are useful for producing amino acids, nucleic acids, vitamins, saccharides and organic acids, oparticularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention. Note: The sequence data for this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel polynucleotides derived from Coryneform bacteria, for identifying mutation point of a gene, measuring expression of a gene, analyzing expression profile or pattern of a gene and identifying homologous gene.
                                                                                   mutation point of a gene, measuring expression of a gene, analyzing expression profile or pattern of a gene and identifying homologous gene.
                                                               Novel polynucleotides derived from Coryneform bacteria, for identifying
                                                                                                                                                                                                                                                                                                                                        patent did not form part of the printed specification, but was obtained in electronic format directly from the Buropean Patent Office
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77 ITTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   331 ATCATCGACAGTGTCTGTTCACACCACCAAATTCACCGATCCAACGTGATGATCGGT 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17 AACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H, Ando S, Hayashi M, Ochiai K, Yokoi
Ikeda M, Ozaki A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid synthesis; vitamin; saccharide;
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 30.6; DB 5; Length 2799;
Pred. No. 8.9;
0; Mismatches 54; Indels 0:
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2799 BP; 715 A; 731 C; 728 G; 625 T; 0 U; 0 Other;
                                                                                                                                   8; SEQ ID NO 2992; 246pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C glutamicum coding sequence fragment SEQ ID NO: 7068.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAH68533 standard; DNA; 349980 BP
                                                                                                                                                                                                                                                                                                                                                                                                                              22.0%;
53.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match
Best Local Similarity 53.8%,
Local Similarity 53.8%,
Local Similarity 53.8%,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Coryneform bacterium; an organic acid synthesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mizoguchi F
Senoh A, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-376931/40.
              WPI; 2001-376931/40.
P-PSDB; AAG92738.
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Tateishi N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAH68533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
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                                                                                                                                                                                                                                                                                                                    This invention describes a novel nucleic acid array involving corynebacterium glutamicum polynuclectides. The arrays are used to analyse C. glutamicum, particularly for monitoring a fermentation process to determine expression levels of C. glutamicum cellular mRNA. Such monitoring particularly differentiates between expression levels of different errains of C. glutamicum and allows the adjustment of different culture and fermentation conditions. ACA00010-ACA02188 represent C. glutamicum derived polynucleotides described in the disclosure of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17 AACTIAAAIAAIGCCIGCCICACCTCTITICITCAGAAAGAGGGIGACTAITIGICIGG 76
                                                                                                                                                                                                                    New nucleic acid array useful for monitoring mRNA expression of
Corynebacterium glutamicum during fermentation, comprising nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77 TTTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 ATCATCGACAGTGTCTGTTCACACCACCAAATTCACCGATCCAACGTGATGGT 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Coryneform bacterium; amino acid synthesis; vitamin; saccharide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 30.6; DB 8; Length 1539;
Pred. No. 7.5;
0; Mismatches 54; Indels 0
                                                                                                                                                   Huthmacher K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1539 BP; 393 A; 394 C; 414 G; 338 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mizoguchi H, Ando S, Hayashi M, Ochiai K,
Senoh A, Ikeda M, Ozaki A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             coding sequence fragment SEQ ID NO: 2992
                                                                                                                                                   Bathe B,
                                                                                                                                                   Pfefferle W,
                                                                                                                                                                                                                                                                                        Claim 1; Page 665-666; 709pp; German.
                                                                                                                                                                                                                                                        from Corynebacterium glutamicum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99JP-00377484.
2000JP-00159162.
2000JP-00280988.
                                               13-JUN-2001; 2001DE-01028510.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAH67957 standard; DNA; 2799
                                                                               13-JUN-2001; 2001DE-01028510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.0%;
53.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63; Conservative
                                                                                                                                                   Moeckel B,
                                                                                                                                                                                   WPI; 2003-279970/28
                                                                                                                 (DEGS ) DEGUSSA AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C glutamicum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EP1108790-A2
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Tateishi N,
               19-DEC-2002
                                                                                                                                                   Farwick M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH67957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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AAH67957
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0; Gaps

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The present invention provides a number of nucleotide and protein sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium, coryneform bacteria are useful for producing amino acids, nucleic acids, vitamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in the correct of the printed specification, but was obtained
                                                                                                                                                                                                                                                                                                                                                                                                                                                 199996 ATCATCGACAGTGTCTGTTCACCAAATTCACCGATCCAACGTGATGGTTCGT 199940
                                                                                                                                                                                                                                                                                                                                                                                                                           77 TITATIAACIGITTAICCCCAAAGCACCATAAICAACGCTAGACIGITCTTAITGIT 133
                                                                                                                                                                                                                                                                                                                                                            17 AACTTAAATAATGCCTGCCTCACCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGG
                                                                                                                                                                                                                                                             Sequence 349980 BP; 81250 A; 97718 C; 90621 G; 80391 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                           Score 30.6; DB 5; Length 349980;
Pred. No. 35;
0; Mismatches 54; Indels 0;
                  Disclosure; SEQ ID NO 7068; 246pp + Sequence Listing; English.
                                                                                                                                                                                                                                electronic format directly from the Buropean Patent Office
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycoplasma genitalium gene involved in transport and binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD63515 standard; DNA; 31241 BP
                                                                                                                                                                                                                                                                                          22.0%;
53.8%;
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                                                                                                                                                                                                                                                                                                                             63; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mycoplasma genitalium.
                                                                                                                                                                                                                                                                                                            Similarity
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autonomous prototrophic or auxotrophic nanomachine comprising a nanomachine genome encoding a minimal gene set sufficient for viability or replication, optionally in the presence of an auxotrophic molecule. Also described is an autonomous prototrophic or auxotrophic nanomachine comprising a basic genetic operating system for autonomous prototrophic or auxotrophic wiability or replication, optionally in the presence of an auxotrophic molecule, and a particle envelope. The nanomachines can be used in gene therapy. The basic genetic operating system or nanomachine is useful in therapeutic, diagnostic and industrial applications, e.g. as The present invention describes a basic genetic operating system for an New basic genetic operating system for autonomous prototrophic or auxotrophic nanomachine, useful for therapeutic, diagnostic or ir purposes, comprises a nanomachine genome encoding a gene set for Example 1; Page 231-240; 250pp; English. biological coating; cosmetic; gene; ds. 20-SEP-2001; 2001US-00960870. 18-SEP-2002; 2002WO-US029811. (EGEA-) EGEA BIOSCIENCES INC. viability or replication. Mycoplasma genitalium. WPI; 2003-354602/33. WO2003025145-A2. 27-MAR-2003 Evans GA; The invention relates to a basic genetic operating system which comprises a nanomachine genome encoding a minimal gene set for viability. The basic genetic operating system is used for an autonomous protorrophic nanomachine or autonomous actorrophic nanomachine. The nanomachine is used as a bioreactor, for bioremediation, for production of a therapeutic biomolecule or as therapeutic agent, for production of a diagnostic Genetic operating system; nanomachine genome; bioreactor; bioremediation; therapeutic biomolecule; energy conversion system; processing system; anabolic; catabolic system; biological film; cosmetic application; Basic genetic operating system for an autonomous prototrophic nanomachine, comprises a nanomachine genome encoding a minimal gene set. Example 1; Page 127-141; 170pp; English WPI; 2003-851721/79 (EVAN/) EVANS G A. Evans GA;

or industrial

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25866 CCTCAGCCAATTTTTTTAACCAAGTGGTGAGTTTTACCATCTGGTTTTGTCTTGTC 25807
                                                                                                                                                                                                                                                                                        ö
                     artificial tissue or organ system, an energy conversion system, as a processing system, as an anabolic or catabolic system, for production of biological films or coatings that may respond to the environment and for cosmetic applications including pharmaceuticals. The present sequence is Mycoplasma genitalium nanomachine gene
                                                                                                                                                                                                                                                                                                                                         93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycoplasma genitalium; gene cassette; replication; transcription; translation; metabolism; basic genetic operating system; gene therapy; autonomous prototrophic nanomachine; auxotrophic nanomachine; nanomachine; bioreactor; bioremediation; therapeutic; delivery system; artificial tissue; artificial organ system; energy conversion system; processing system; anabolic system; catabolic system; biological film;
                                                                                                                                                                                                                                                                                                                                      34 CCTCACCCTCTTTCTTCAGAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATC
                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                               Sequence 31241 BP; 10733 A; 4570 C; 5361 G; 10577 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M. genitalium transport and binding gene cassette DNA SEQ ID NO:13
  or as a diagnostic reagent, as a delivery system, as an
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0
                                                                                                                                                                                                                                     Length 31241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25806 ATTAAAAGAACGCTATCAAATCTATACCCCTTTTTTGCTAAAA 25763
                                                                                                                                                                                                                                                                                                                                                                                                                                          94 CCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAACA 137
                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                             Score 30.4; DB 10;
Pred. No. 20;
                                                                                                                                                                                                                                                                                     46;
                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP.
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                                                                                                                                                                                                                               21.9%;
55.8%;
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                                                                                                                                                                                                                                                                                   58; Conservative
                                                                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACC69145;
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                                                                                                                                                                                                                                                                                   Matches
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Homo sapiens.
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a bioreactor, for bioremediation, for the production of a therapeutic biomolecule or as a therapeutic reagent, for the production of a diagnostic indicator or reagent, as a delivery system, as an artificial tissue or organ system, as an energy conversion system, as a processing system, as an anabolic or catabolic system, for the production of shological films or cactings, and for cosmetic applications. The present sequence represents a Mycoplasma genitalium gene cassette nucleotide sequence, which is used in an example from the present invention for the design and synthesis of a basic genetic operation system for a replication competent nanomachine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence
                                                                                                                                                                                                                                                                   93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Basic genetic operating system for autonomous prototrophic nanomachine, comprises nanomachine genome encoding minimal gene set sufficient for viability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides a basic genetic operating system for an
                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      autonomous prototrophic nanomachine comprises a nanomachine genome encoding a minimal gene set sufficient for viability. The present sequence is Mycoplasma genitalium functional gene fragment. This set is used in the exemplification of the invention.
                                                                                                                                                                       Sequence 31241 BP; 10733 A; 4570 C; 5361 G; 10577 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 31241 BP; 10733 A; 4570 C; 5361 G; 10577 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 12; Length 31241;
                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                     DB 10; Length 31241;
                                                                                                                                                                                                                                                                                                                                                         25806 ATTAAAAGAACGCTATCAAATCTATACCCCTTTTTTTGCTAAAA 25763
                                                                                                                                                                                                                                                                                                                             94 CCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAACA 137
                                                                                                                                                                                                                                  46; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mycoplasma genitalium functional gene fragment #13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prototrophic nanomachine; functional gene; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 30.4; DE; Pred. No. 20; 0; Mismatches
                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                      20;
                                                                                                                                                                                                     Score 30.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; SEQ ID NO 13; 170pp; English.
                                                                                                                                                                                                                      Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADN48950 standard; DNA; 31241 BP
                                                                                                                                                                                                    21.9%;
55.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                  Local Similarity 55.8
es 58; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycoplasma genitalium.
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Best Local Similarity
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58; Conservative

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34 CCTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATC 93

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Human; membrane spanning 4-domain A; cytostatic; antiallergic; MS4A; gene therapy; atopic disorder; non-Hodgkin's lymphoma; MS4A7; MS4A12; Hodgkin's lymphoma; allergenic disease; gene; 88; chromosome 11q12-13.1;
                                      25806 ATTAAAAGAACGCTATCAAATCTATACCCCTTTTTTTGCTAAAA 25763
                        94 CCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAACA 137
                                                                                                                             Human MS4A7, MS4A5 and MS4A12 genomic sequence.
                                                                                                                                                                                                                                   note= "Contains 5 introns" .7493. .17639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note= "Contains 4 introns"
                                                                                                                                                                                                   location/Qualifiers
                                                                               ABQ99653 standard; DNA; 104644 BP.
                                                                                                                                                                                                                          product= "MS4A7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= m
/product= "MS4A5"
                                                                                                                                                                                                                                                                                                                        /*tag= e
/number= 2
21068. .21124
                                                                                                                                                                                                                                                                                                                                                                                               /*tag= h
/number= 4
23948. .27036
/*tag= i
                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= j
/number= 5
27139. .28138
/*tag= k
                                                                                                                                                                                                                                                                                                                                                                                     23741. .23947
/*tag= h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54028. .82112
                                                                                                                                                                                                            7493. .28213
                                                                                                                                                                                                                                                                  7640. .19438
                                                                                                                                                                                                                                                                                          9439. .19573
                                                                                                                                                                                                                                                                                                         number= 2
9574. .21067
                                                                                                                                                                                                                                                                                                                                                                11125. .23740
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/number= 1
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/number= ;
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(5'site:YES, 3'site:NO)
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00890. .101000
*tag= ag
                                                                                                                                   note= "Contains 5 introns" 1488. .91760
                                                                                                                  1488. .101286
*tag= x
product= "MS4A12"
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101001. .101181
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                                     66764. .66820
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/number= (
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WO200262946-A2

10-DEC-2001; 2001WO-US048437 15-AUG-2002

08-DEC-2000; 2000US-0254362P. 20-FEB-2001; 2001US-0270057P.

Tedder TF, Liang YH;

(UYDU-) UNIV DUKE.

ô 88361 New membrane spanning 4-domain A (MS4A) genes and polypeptides, useful for generating animal models of atopic disorders, for drug screening, or for treating (non-) Hodgkin's lymphoma, or allergenic or atopic disorders 76 GITTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAA 135 The invention relates to novel membrane spanning 4-domain A (MS4A) uncleic acid and polypeptide molecules, comprising human and mouse MS4A. The polypeptides of the invention have cytostatic and antiallergic activity. The polymucleotides may have a use in gene therapy. The MS4A nucleic acids and polypeptides are useful for generating animal (e.g. ancuse) models of atopic disorders, or for drug discovery screens are also useful for treating (non-)Hodgkin's lymphoma, allergenic diseases, atopic disorders or other MS4A-related conditions. The present sequence represents a human MS4A genomic region, encoding the MS4A7, 75 Sequence 104644 BP; 33140 A; 20880 C; 20558 G; 29988 T; 0 U; 78 Other; 88420 GAACCCAGATTATTCATGGCTAGGTCTATAGTTATTAGGACTCAGAATACATTTTTACTG 16 GAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTG Gaps Score 30.4; DB 6; Length 104644; Pred. No. 29; 0; Mismatches 56; Indels 0; Claim 18; Page 328-385; 450pp; English WPI; 2002-657530/70. P-PSDB; ABP65025, ABP65029, ABP65045. V Match 21.9%; Local Similarity 53.3%; nes 64; Conservative C MS4A5 and MS4A12 proteins e.g. humans. Query Match Best Loc Matches 셤 ò g

ADB12064 from base 300001 (Alloiococcus otitis entire genome se fragments LOCUS ADB12064 Accession Adb12064 110000 210000 1610000 100001 Begin 100001 of 18 Sequence split into Fragment Name ADB12064 00 of 18) ADB12064 00
ADB12064 01
ADB12064 02
ADB12064 03
ADB12064 04
ADB12064 04
ADB12064 05
ADB12064 05 ADB12064_08 ADB12064_09 ADB12064_10 ADB12064_11 ADB12064 12 ADB12064 13 ADB12064 14 ADB12064_15 ADB12064_03/c Continuation

Gaps DB 9; Length 110000; ; 0 68; Indels Score 30.2; Di Pred. No. 34; 0; Mismatches Local Similarity 51.1%; les 71; Conservative 21.7%; Query Match Best Loc Matches

1754382

1700001

ADB12064_16 ADB12064_17

1 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAGAGG

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57241 57240 ACACTAAATTTTAAAATTACATATGTTTCGATTGCTTCCCCATTATTCCCAAAACTACAA 57181 61 GIGACTATITIGICIGGITTATTAACTGITTATCCCCAAAGCACCATAATCAACGCTAGAC 120 57300 GTAATTTTTCTCGAACAACTTAAGTTATTCGAGAATGATCATCTATTTTTTTCTCAAACTGA d g à

RESULT 19

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Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
Human immune/haematopoietic antigen genomic sequence SEQ ID NO:29602.
                                         cytostatic; gene therapy; vaccine; metastasis; ds
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2000US-0230438P
2000US-0231242P
2000US-0231244P
2000US-0231244P
2000US-0231414P
2000US-0231414P
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2000US-0229287P.
2000US-0229343P.
2000US-0229344P.
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2000US-0233064P.
2000US-0233065P.
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2000US-0226868P.
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2000US-0225
2000US-0225
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14-AUG-2000;
14-AUG-2000;
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22-AUG-2000;
23-AUG-2000;
                                                                       Homo sapiens.
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                                                                                                                           09-AUG-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to novel prokaryotic type or plastid division and related genes and proteins. In particular, the invention relates to novel Ptn2 (ARC5 and F20-like genes and polypeptides. The methods and compositions of the present invention are useful for further characterising plastid division in plant cells, in order to vary agronomic and horticultural characteristics of economically important plants, such as crop, ornamental and woody plants. They can also be used as herbicide targets. The present sequence is a cDNA sequence which is
                                                                                                                                                                                                            prokaryotic type; plastid division; Ftn2; ARC6; ARC5; Fzo; plant cell; agronomic; horticultural; crop plant; ornamental plant; woody plant; herbicide target; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated Ftn2, ARC5 and/or Fzo-like nucleic acid sequences, useful for further characterizing plastid division in plant cells, and in varying agronomic and horticultural characteristics of economically important plants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15; Indels
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                                                                                                                                                                                       Plastid division-related Arc6 orthlogue cDNA 64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 26; 287pp; English.
                   57180 CCAGCTAACTGTTTAAACA 57162
  121 TGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAK74790 standard; DNA; 10711 BP
                                                                                                  ADJ38283 standard; cDNA; 622
                                                                                                                                                                                                                                                                                                                                                              20-JUN-2003; 2003WO-US019536
                                                                                                                                                                                                                                                                                                                                                                                          20-JUN-2002; 2002US-0390140P
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20-JUN-2003; 2003US-00600070
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                                                                                                                                                         06-MAY-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         related to the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           39; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2004-082486/08
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                                                                                                                                                                                                                                                                            Prunus persica
                                                                                                                                                                                                                                                                                                                                   31-DEC-2003.
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ADJ38283

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ADJ38283

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ADJ38283

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ADJ38283

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ADJ38283

YX
ADJ38283

YX
ADJ38283

YX
ADJ38283

YX
ADJ3828

Matches

8 g AAK74790/ ID AAK7 XX AC AAK7 XX DT 07-N

RESULT

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21-SEP-2000; 2000US-0234223P.
25-SEP-2000; 2000US-0234999P.
25-SEP-2000; 2000US-0234999P.
26-SEP-2000; 2000US-0234999P.
27-SEP-2000; 2000US-0235834P.
27-SEP-2000; 2000US-0235834P.
27-SEP-2000; 2000US-0235834P.
29-SEP-2000; 2000US-023636P.
29-SEP-2000; 2000US-023636P.
29-SEP-2000; 2000US-023636P.
29-SEP-2000; 2000US-023639P.
02-OCT-2000; 2000US-023639P.
02-OCT-2000; 2000US-0237039P.
02-OCT-2000; 2000US-023937P.
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02-OCT-2000; 2000US-023937P.
02-OCT-2000; 2000US-023937P.
02-OCT-2000; 2000US-0241785P.
02-OCT-2000; 2000US-0241787P.
02-OCT-2000; 2000US-0241787P.
02-OCT-2000; 2000US-024188P.
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02-OCT-2000; 2000US-024188P.
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2000US-0250160P.
2000US-0250391P.
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2000US-0251988P.
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17-NOV-2000;
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01-DEC-2000;
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AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)

amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
activity, and can be used in gene therapy and vaccine production. (I)
proteins and polymucleotides may be used in the prevention, diagnosis and
treatment of diseases associated with inappropriate (I) expression. For
example, they may be used to treat disorders associated with decreased
expression by rectifying mutations or deletions in a patient's genome
that affect the activity of (I) by expressing inactive proteins or to
supplement the patients own production of (I). Additionally, (I)
cuplement the patients own production of (I). Additionally, (I)
cucleic acids into a host cell and culturing the cell to express the
protein. (I) proteins and polymucleotides may be used to prevent,
diagnose and treat immune/haematopoietic-related diseases, especially
cancers and cancer metastases of haematopoietic antigen genomic
to AAK87694 represent human immune/haematopoietic antigen genomic
sequences from the present invention. AAK54942 to AAK8750 and AAM82169
crepresent sequences used in the exemplification of the present invention
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                                                                                                                                                                                                       Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunogenic prostate tumour protein cDNA sequence SEQ ID NO:293
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; prostate cancer; diagnosis; tumour; gene therapy; detection;
immunogenic; cytostatic; vaccine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 10711 BP; 3044 A; 2557 C; 2437 G; 2673 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 29602; 3071pp + Sequence Listing; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 21.6%; Score 30; DB 4; Length 10711; Best Local Similarity 54.5%; Pred. No. 20; Astches 60; Conservative 0; Mismatches 50; Indels
                                                                                                                          Ruben SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-00116134.
98US-00159812.
98US-00159822.
                   11-DEC-2000; 2000US-0254097P
05-JAN-2001; 2001US-0259678P
08-DEC-2000; 2000US-0251990P
                                                                               (HUMA-) HUMAN GENOME SCI INC
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                                                                                                                       Rosen CA, Barash SC,
                                                                                                                                                                WPI; 2001-483426/52
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23-SEP-1998;
23-SEP-1998;
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Dillon DC, Mitcham JL, Harlocker SL, Jiang Y, Kalos MD;
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                                                                                                                                                                                                                                                     the present invention
  WPI; 2001-425873/45.
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                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
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09-MAY-2000;
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                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                          The present invention describes isolated polypeptides, comprising an immunogenic portion of a prostate tumour protein (PTP). The polypeptides and polymucleotides encoding them have cytostatic activity and can be used in vaccines and in gene therapy. The polypeptides and polymucleotides, enribodies against the polypeptides and vaccines comprising them can be used for inhibiting the development of prostate cancer in a patient. The polypeptides can be used to generate antibodies or antibodies for passive immuno therapy. A portion of the polymucleotides encoding the polypeptides can be used to generate antibodies or antibodies for passive immuno therapy. A portion of the modulate the expression of the polypeptides can be used as a probe or to modulate the expression of the polypeptides can be used as a probe or to modulate the expression of the polypeptides used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                      43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCTCCCCAAAGCA 102
                                                                                                                                                                                                                                                                                                                                                                                                                                            30 crericicacreaaaagrereecraarecrerrereracrererererearrerea
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                     New polypeptide useful for treating and diagnosing prostate cancer comprises an immunogenic portion of prostate tumor protein.
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Retter MW, Stolk JA, Skeiky YAW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prostate-specific; diagnosis; vaccine;
                                                                                                                                                                                                                                                                                                                                                                        DB 3; Length 301;
                                                                                                                                                                                                                                                                                                                                                                                               42; Indels
                                                                       Mitcham JL;
                                                                                                                                                                                                                                                                                                                                                 Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90 AATCAATCAATGGCCTAGAGCACTGACTGTTAACACA 126
                                                                                                                                                                                                                                                                                                                                                                      Score 29.8; DB; Pred. No. 8.6; 0; Mismatches
                                                                        Χu J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human prostate-specific cDNA sequence P8D8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; gene therapy; metastasis; ss
                                                                      Harlocker SL, Yugiu J,
                                                                                                                                                      Claim 1; Page 194; 263pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dillon DC, Mitcham JL, MD, Fanger GR, Day CH,
99US-00232149.
99US-00232880.
99US-00288946.
                                                                                                                                                                                                                                                                                                                                                                       21.4%;
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Matches 55; Conservative
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                                                                                                                    New polypeptide useful
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Kalos MD, Panger GR,
                                                                                                                                                                                                                                                                                                                         the present invention
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                                                (CORI-) CORIXA CORP
                                                                                             WPI; 2000-171268/15
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 15-JAN-1999;
15-JAN-1999;
                         09-APR-1999;
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                                                                      Dillon DC,
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                                                                                                                                                                                                                                                                                                                                                                        Query Match
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prostate-specific proteins (II). (I) have cytostatic activity, and can be used in vaccine production and gene therapy. (I), (II), and can be used in vaccine production and gene therapy. (I), (II), fusion proteins comprising (II), and isolated T cells prepared using (I) or (II) are used treat cancer in a patient. (I) and the antibodies are also used in the detection of cancer in a patient. (I) and (II) can be used in vaccines. The antibodies or (I) can be used for monitoring the progression of cancer in a patient. (I) and (II) can also be used to improve diagnostic and therapeutic methods for prostate cancer. They can indicate the level of metastasis as well as the prostate volume. AAH931357 to AAH93944 and AAM01115 to AAM0118 represent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43 CTTTTCTTCAGAAAAAAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30 CTGTTCTCACTGAAAAGTCTGGCTAATGCTCTTGTGTGTCACTTCTGATTCTGACAATC 89
New polynucleotide encoding a prostate-specific protein, for diagnosing, monitoring and treating prostate cancer in a patient and for use in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                   present invention describes polynucleotide sequences (I) which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; prostate cancer; ss; cytostatic; immunostimulant; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 29.8; DB 4; Length 301;
Pred. No. 8.6;
0; Mismatches 42; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90 AATCAATCAATGGCCTAGAGCACTGACTGATTAACACA 126
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                                                                                                                                                       Claim 1; Page 320; 543pp; English.
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29-AUG-2000; 2000US-00651236
06-SEP-2000; 2000US-00657279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 21.4%;
1 Similarity 56.7%;
55; Conservative
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2000US-00605783
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The invention relates to isolated prostate-specific polynucleotides, polypeptides, fusion proteins of the polypeptides, antibodies raised against the polypeptides (or antigenic epitiopse derived from them) and antigen-presenting cells expressing the polypeptides. The antibodies are useful for detecting the presence of cancer, especially prostate cancer. The polypeptides, polynucleotides and the antigen-presenting cells are useful for stimulating and/or expanding T cells specific for a tumour protein, and for inhibiting the development of cancer especially prostate cancer. Compostitions comprising the polynucleotide and/or polypeptide are useful for stimulating an immune response, and for treating cancer. The oligonucleotide is useful for detecting cancer. The prostate specific polynucleotide of the invention
                                                                                                                   human prostate-specific polypeptides and polynucleotides useful for diagnosis and treatment of cancer, especially prostate cancer.
     ä
Stolk JA, Day CH, Vedvick TS, YAW, Hepler WT, Henderson RA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other;
                                                                                                                                                                                       Claim 1; Page 322; 579pp; English
                         Wang A, Skeiky
  Retter MW,
                      Li SX,
                                                                                                                        New
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ö CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102 30 CIGITCICACIGAAAAGICIGGCIAAIGCICITGIGAGICACITCIGAITCIGACAAIC 89 Gaps ö Score 29.8; DB 4; Length 301; Pred. No. 8.6; 0; Mismatches 42; Indels 103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139 90 AATCAATCAATGGCCTAGAGCACTGACTGTTAACACA 126 21.4%; 56.7%; Local Similarity 56.7 es 55; Conservative Query Match 43 d ð à g

AAH02707 standard; cDNA; 301

AAH02707

(first entry) 14-JUN-2001 Prostate tumour antigen determined cDNA sequence for P8D8

Human; prostate tumour antigen; prostate tumour; therapy; diagnosis; prostate cancer; immunogenic; cytostatic; vaccine; ss.

Homo sapiens.

WO200125272-A2

12-APR-2001

04-OCT-2000; 2000WO-US027464.

99US-0157455P 04-OCT-1999;

(CORI-) CORIXA CORP.

Cheever MA Xu J, Skeiky YAW, Reed SG,

Prostate specific protein and its encoding polynucleotide, useful for the treatment and diagnosis of prostate cancer

Claim 4; Page 206-207; 276pp; English

The present invention describes an isolated polypeptide (I) comprising at

least an immunogenic portion of a prostate tumour antigen protein or its variant. (I) have cytostatic activity and can be used in vaccine production. (I), prostate tumour antigen polynucleotides, an antigen presenting cell (APC e.g. a dendritic cell) that expresses (I), and a pharmaceutical composition containing (I) are useful for inhibiting the development of cancer in a patient. Antibodies specific for prostate specific proteins and oligonucleotides that hybridise to a polynucleotide that encodes a prostate specific protein are useful for detecting the presence of a cancer or monitoring the progression the progression of a cancer, especially prostate cancer. AAH02422 to AAH2872, AAB7798, to AAB74821 and AAB74830 are sequences used in the ó 43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102 The present invention describes an isolated polypeptide (P1) comprising at least an immunogenic portion of a prostate-specific protein, or its variant. Also described are polynucleotides (N1) encoding (P1). (P1) and (N1) have cytostatic activity and can be used in vaccine production. The polypeptides, nucleic acids and antibodies from the present invention are useful in the diagnosis and persapy of prostate cancer. Prostate specific genes P704P, P774P, P775P and B305D are located in a genomic 30 CTGTTCTCACTGAAAGTCTGGCTAATGCTCTTGTGTAGTCACTTCTGATTCTGACAATC 89 Gaps Isolated polypeptide comprising at least an immunogenic portion of prostate-specific protein, useful in the diagnosis and therapy of Reed SG; ö Human, prostate cancer, therapy, diagnosis, cat eye syndrome, chromosome 22q11.2, prostate-specific protein, chromosome 1, prostate specific antigen, PSA, ss. Wang Score 29.8; DB 4; Length 301; Pred. No. 8.6; 42; Indels Mitcham JL, Harlocker SL, Jiang Y, MW, Stolk JA, Day CH, Skeiky YAW, Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other; 103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139 90 AATCAATCAATGGCCTAGAGCACTGACTGATAACACA 126 21.4%; Scor. 56.7%; Pred. No. e... Human prostate-specific cDNA sequence JP8D8 exemplification of the present invention Claim 5; Page 220; 325pp; English. AAH84956 standard; cDNA; 301 09-NOV-2000; 2000WO-US030904. 99US-00439313. (first entry) Local Similarity 56.7 hes 55; Conservative Dillon DC, Mit MD, Retter MW, (CORI-) CORIXA CORP. WPI; 2001-308785/32 prostate cancer. WO200134802-A2 sapiens 12-NOV-1999; 18-NOV-1999; 25-SEP-2001 17-MAY-2001. AAH84956; Query Match Xu J, Kalos Matches Homo RESULT 25 AAH84956 ID AAH8 88888888888888888 셤 à ð

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99US-00443686.
2000US-00483672.
2000US-00536857.
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21.4%;
Best Local Similarity 56.7%;
Matches 55; Conservative
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Wang A, Skein,
Dn. Houghton RL,
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                                                            WPI; 2001-245062/25
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27-MAR-2000;
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     Li SX, V
Mcneill E
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     region on chromosome 22q11.2 known as the Cat Eye Syndrome region. Prostate specific antigen (PSA) P5018 was located on chromosome 1. AAH86471 to AAH85143 and AAG99000 to AAG99077 represent polymucleotide and polypeptide sequences used in the exemplification of the present
                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prostate cancer; vaccine; gene therapy; cytostatic; fusion protein; immunogen; cancer; prostate specific antigen; PSA; prostatic acid phosphatase; PAP; prostate specific membrane antigen;
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Carter D;
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0
                                                                                                                                                Score 29.8; DB 4; Length 301;
Pred. No. 8.6;
0; Mismatches 42; Indels (
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Fanger GR, Retter MW, Stolk JA, Day CH, Vedvick TS,
                                                                                                                 Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                  103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                                                                                                                                                    90 AATCAATCAATGGCCTAGAGCACTGACTGTTAACACA 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prostate cancer therapy associated cDNA #286.
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04-OCT-2000; 2000US-00679272.
28-MAR-2001; 2001US-00822827.
                                                                                                                                                  21.4%;
56.7%;
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                                                                                                                                                                                      55; Conservative
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Y DE BASSOLS C
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WANG A.
SKEIKY Y A W.
HEPLER W T.
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HARLOCKER S L.
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MCNEILL P D.
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KALOS M D.
FANGER G R.
RETTER M W.
STOLK J A.
DAY C H.
VEDVICK T S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PSMA; gene; ss
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                                                                               invention
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                                                                                                                                                  Query Match
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(MITC/)
(HARL/)
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(KALO/)
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(RETT/)
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ACA59543

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ACA59543

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The invention describes a fusion protein comprising at least one amino acid sequence of immunogenic portions of any of the 3 sequences not defined in the specification, or sequences having at least 70 or 30 % sequence identity to any one of the 35 sequences defined in the USPTO web site, which is encoded by any of the 4 nucleotide sequences not defined in the specification. The fusion protein, composition and methods are useful for diagnosing, preventing and/or treating cancer, particularly prostate cancer. The proteins are useful as markers to indicate the presence or absence of cancer. This sequence represents a prostate cancer therapy associated oDNA. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the US patent office at sequence. uspto.gov/sequence.html?DocID=US20020192763
                                                                                                                                                                                Prostate specific protein and its encoding polynucleotide, useful for the treatment and diagnosis of prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43 CITITICITCAGAAAGAGGGTGACTATITGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
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   Hural J;
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   RA,
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Skeiky YAW, Hepler WT, Henderson jhton RL, Y De BassolsCV, Foy TM;
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97US-00904804.
98US-00030607.
98US-00115453.
98US-00115453.
99US-00232149.
99US-00232149.
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12-NOV-2002; 2002US-00294025.
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                                     WO200289747-A2
     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                in a patient
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                                                                         14-NOV-2002
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ADB13743
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention provides prostate-specific coding sequences and their encoded proteins. These can be used in the diagnosis and treatment of cancers, particularly prostate cancer. The present sequence is a cDNA described in the invention
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Carter D;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New prostate-specific polynucleotides for diagnosing and tre diseases, in particular prostate cancer, and as markers for progression of cancer.
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             12-MAY-2000; 2000US-00570737.
13-JUN-2000; 2000US-00593793.
27-JUN-2000; 2000US-00605783.
10-AUG-2000; 2000US-00636215.
29-AUG-2000; 2000US-00651236.
06-SEP-2000; 2000US-0065779.
02-OCT-2000; 2000US-0069166.
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 2000US-00568100
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Best Local Similarity 56.7.
The S5; Conservative
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DILLON D C.
MITCHAM J L.
HARLOCKER S L.
JIANG Y.
KALOS M D.
FANGER G R.
RETTER M W.
STOLK J A.
DDAY C H.
VEDVICK T S.
CARTER D.
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WANG A.
SKEIKY Y A W.
HEPLER W T.
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(DILL/)
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Li SX,
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BRANGER STATE STAT
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New prostate-specific proteins and genes, useful in gene therapy, particularly for stimulating an immune response in a patient, or treating prostate cancer in a patient, as well as for diagnosing prostate cancer
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                                                                                                                                                                                                                                                                                                                        Xu J, Dillon DC, Mitcham JL, Harlocker SL, Jiang Y, Henderson RA; Kalos MD, Fanger GR, Retter NM, Stolk JA, Day CH, Vedvick TS; Carter D, Li SX, Wang A, Skeiky YAW, Hepler WT, Hural J; Moneill PD, Houghton RL, Vinals Y De Bassolsc, Foy TW, Watanabe Y;
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gene therapy; cell therapy; vaccine; T-cell epitope;
class I major histocompatibility complex allele; MHC; prostate cancer;
tumour; antigen presenting cell.
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56.7%; Pred. No. 8.6;
tive 0; Mismatches
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                                                                                                                   29-JUN-2001; 2001US-00895814.
10-DEC-2001; 2001US-00012896.
09-MAY-2002; 2002WO-US014753
                                                                                 09-MAY-2001; 2001US-00852911
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Best Local Similarity 56.7
Matches 55; Conservative
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Χu J,
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97US-00806099.
97US-00304804.
98US-00030607.
98US-00159812.
98US-00159812.
99US-00288946.
99US-00352616.
99US-00439313.
                                                                                                                                                                                     2000US-00593793.
2000US-00605783.
2000US-00636215.
2000US-00651236.
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2000US-00679426.
2000US-00709729.
2001US-00759143.
2001US-00780669.
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2000US-00568100.
2000US-00570737.
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02-OCT-2000;
10-OCT-2000;
09-NOV-2000;
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29-AUG-2000;
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                                    25-FEB-1998;
14-JUL-1998;
23-SEP-1998;
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                                                                                                                         18-NOV-1999;
                                                                                       09-APR-1999
                                                                                                  13-JUL-1999;
12-NOV-1999;
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WPI; 2003-756193/71.

New isolated polypeptide for use in a vaccine for stimulating an immune response, or for treating or diagnosis cancer, preferably prostate

Example 5; Page; 101pp; English.

The invention relates to an isolated polypeptide comprising no more than 11-542 amino acids of ADB13563 comprising a sequence ADB14487. The peptides comprises a fragment ADB13563 of that contain naturally processed T-cell epitopes for 3 class I major histocompatibility complex (MHC) alleles. ADB13563 is a polypeptide encoded by a human prostate specific contains one of 648 disclosed as new. Also included are nucleic acids encoding the proteins and peptides, expression vectors, a host cell transformed with the vector, an isolated antibody (or antigen binding chaptened by a human prostate specific fragment) that specifically binds to the protein or peptide, detecting the presence of a cancer in a patient (comprising contacting a patient sample with a binding agent that binds to the peptides or a polypeptide appearing as ADB13558, detecting the amount of polypeptide that binds to the appearing as ADB13558, detecting the amount of polypeptide that binds to comprising the presence of cancer), a fusion protein comprising compacting or expanding T cells specific for a tumour protein comprising contacting or expanding T cells peptides or the isolated T cell population, treating prostate cancer in a patient and treating prostate cancer in a patient with the peptides or antigen presenting cells that express (from a patient with the peptides or antigen presenting cells to the petides or antigen presenting contacting the presence of cancer in a patient. The peptides (or an oligonuclectide that hybridises to nucleic acid encoding them), is used to detect the patient and patient. The peptides including an origing the purpose. antigen-presenting cells expressing the nucleic acid, are used to stimulate or expand T cells specific for a tumour protein. The peptides, nucleic acids, antibodies, fusion proteins, T cell populations or antigen presenting cells are used to etimulate an immune response or treat

CORI-) CORIXA CORP

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43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
                                                                                                                                                                30 CTGTTCTCACTGAAAGTCTGGCTAATGCTCTTGTGTAGTCACTTCTGATTCTGACAATC 89
prostate cancer in a patient. The present sequence is one of the disclosed human prostate specific cDNAs. Note: Except where otherwise indicated, the sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from USPTO at sequata.uspto.gov/sequence.html?DocID=20030185830.
                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                    Human; prostate-specific polypeptide; gene; ss; prostate cancer;
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                                                                                            Length 301;
                                                                                                                   Indels
                                                                      Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other;
                                                                                                                                                                                         103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                             90 AATCAATCAATGGCCTAGAGCACTGACTGATAACACA 126
                                                                                            DB 10;
                                                                                                                   42;
                                                                                           Score 29.8; D. Pred. No. 8.6;
                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                             Human prostate-specific cDNA #286.
                                                                                                                                                                                                                                                                        ADG26159 standard; cDNA; 301 BP
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98US-00020956.
98US-00115453.
98US-00159812.
99US-00232149.
99US-00232149.
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2000US-00709729.
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2001US-00852911.
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2000US-00593793.
2000US-00605783.
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Matches 55; Conservative
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13-JUN-2000;
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09-FEB-1998;
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New polynucleotides encoding prostate specific polypeptides isolated from a human prostate tumor cDNA library are useful to diagnose and treat cancer particularly prostate cancer.
                                                                                                                                                                                                                                                                                                                                                             The invention relates to human prostate-specific polypeptides and the polynucleotides encoding them. The invention also relates to an isolated antibody or its antigen-binding fragment that specifically binds a polypeptide of the invention, a method of detecting cancer in a patient comprising contacting a biological sample of the patient with an agent that binds a prostate-specific polypeptide and comparing the amount of bound polypeptide compared to a predetermined cut-off value and a fusion protein comprising a prostate-specific polypeptide. The sequences of the invention are used to diagnose and treat cancer, particularly prostate annear. This sequence represents cDNA encoding a human prostate-specific polypeptide of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at sequence.
Xu J, Dillon DC, Mitcham JL, Harlocker SL, Jiang Y, Henderson RA; Kalos MD, Fanger GR, Retter MW, Stolk JA, Day CH, Vedvick TS; Carter D, Li SX, Wang A, Skeiky YAW, Hepler WT, Hural J; Mcneill PD, Houghton RL, Vinals Y De BassolsC, Foy TW, Watanabe Y;
                                                                                                                                                                                                                                                                                                                       Example 5; SEQ ID NO 293; 99pp; English.
                                                   Carter D, Li SX, Warner BD, Houghton Meagher MJ, Deng T;
                                                                                                                                                           WPI; 2003-777973/73
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Sequence 301 BP; 83 A; 73 C; 60 G; 85 T; 0 U; 0 Other;

43 CITITICITCAGAAAGAGGGTGACTATITGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102 ö Query Match 21.4%; Score 29.8; DB 10; Length 301; Best Local Similarity 56.7%; Pred. No. 8.6; Matches 55; Conservative 0; Mismatches 42; Indels 0. à

90 AATCAATCAATGGCCTAGAGCACTGATTAACACA 126

Search completed: December 22, 2004, 02:36:23 Job time : 1042 secs

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Sequence:

Scoring table:

88

Minimum I Maximum I

Database

Title: Perfect score:

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Run on:

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Sequence 109769,
Sequence 46, Appl
Sequence 229999,
Sequence 229999,
Sequence 129999,
Sequence 1183, Appl
Sequence 1183, Appl
Sequence 1184, Appl
Sequence 1184, Appl
Sequence 1654, Appl
Sequence 197263,
Sequence 197263,
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Sequence 1, Appli
Sequence 255960,
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Sequence 236049,
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Sequence 391, App
                              Sequence 293, Ap
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Sequence 54(
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08-09-789-143-293
08-09-789-143-293
08-09-822-827-293
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Sequence 117, App
Sequence 105245,
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1: /cgn2 6/ptodata/2/pubpna/US07 PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
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19: /cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
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and is derived by analysis of the total score distribution.
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Copyright (c) 1993 - 2004 Compugen Ltd.
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US-09-738-626-2992
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Match
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221.39
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300.0 300.0 300.0 300.0 444.44.0 500.0

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Score

Result 2 30.5

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NAME/KEY: misc feature
LOCATION: (74)...(75)
OTHER INFORMATION: n=g, a
FRATURE:
NAME/KEY: misc feature
LOCATION: (158)...(158)
OTHER INFORMATION: n=g, a
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ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                               US-10-282-122A-37352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-363-829-150/c
                                                          Sequence 188, App
Sequence 188, App
Sequence 118, Appl
Sequence 195038,
Sequence 195038,
Sequence 36959, A
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APPLICANT: Xu, H.

TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
FILE REFERENCE: ELITRA.034

CURRENT APPLICATION NUMBER: US/10/282,122A

CURRENT FILING DATE: 2003-02-20

PRIOR APPLICATION NUMBER: 60/191,078

PRIOR PILING DATE: 2000-03-21

PRIOR PLILING DATE: 2000-03-21

PRIOR PLILING DATE: 2000-03-23

PRIOR PLILING DATE: 2000-05-26

PRIOR PLILING DATE: 2000-05-06

PRIOR PLILING DATE: 2000-05-06

PRIOR APPLICATION NUMBER: 60/230,335

PRIOR APPLICATION NUMBER: 60/230,347

PRIOR APPLICATION NUMBER: 60/230,347

PRIOR APPLICATION NUMBER: 60/230,347

PRIOR APPLICATION NUMBER: 60/25,625

PRIOR PLILING DATE: 2000-10-23

PRIOR PLILING DATE: 2000-11-27

PRIOR PLILING DATE: 2000-11-27

PRIOR APPLICATION NUMBER: 60/25,636

PRIOR APPLICATION NUMBER: 60/25,636

PRIOR PPLING DATE: 2001-02-09

PRIOR PPLING DATE: 2001-02-09

PRIOR PPLING DATE: 2001-02-09

PRIOR PLILING DATE: 2001-02-06

PRIOR PLILING DATE: 2001-02-06
                                                                                                                                                                                                                                                                    Sequence 2035, Ap. Sequence 26958, Academice 248955, Sequence 248955, Sequence 248955, Sequence 248955,
                     S US-10-369-493-46078

US-00-781-986A-188

6 US-10-379-624-188

6 US-10-379-632-195038

5 US-10-027-632-195038

5 US-10-027-632-195038

6 US-10-424-599-3659

6 US-10-424-599-3659

7 US-10-424-599-36958

8 US-10-424-599-36958

9 US-10-424-599-36958

1 US-10-424-599-36958
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US-10-027-632-248955
US-10-027-632-248956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 37352, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
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LOCATION: (72)...(72)
OCHER INFORMATION: n=g, a, t or
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Salmonella paratyphi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wang, Liangsu
APPLICANT: Zamudio, Carlos
APPLICANT: Malone, Cheryl
APPLICANT: Haselbeck, Robert
APPLICANT: Ohlsen, Kari
APPLICANT: Zyskind, Judith
APPLICANT: Wall, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Trawick, John
Carr, Grant
Yamamoto, Robert
Forsyth, R.
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### SEGNATION: 10.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77 TTTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTT 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              331 ATCATCGACAGTGTCTGTTCACACCACCAAATTCACCGATCCAACGTGATGATCGGT 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17 AACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGG
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                                                                                                                        105 ATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                               489 ricrgraardcragaarcrcrcrcrcrcrarcaca 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
22.0%; Score 30.6; DB
Best Local Similarity 53.8%; Pred. No. 14;
Matches 63; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: NAKAGAWA, SATUCSHI
APPLICANT: ANIZOGUCHI, HIROSHI
APPLICANT: ANIZOGUCHI, HIROSHI
APPLICANT: HAYASHI, MIKIRO
APPLICANT: COCHIAL, KEIKO
APPLICANT: YOKOI, HARUHIKO
APPLICANT: YOKOI, HARUHIKO
APPLICANT: TATEISHI, NAOKO
APPLICANT: REDNA, MASATO
APPLICANT: REDNA, MASATO
APPLICANT: REDNA, MASATO
APPLICANT: OZAKI, AKIO
TITLE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 1999-12-16
PRIOR PELING DATE: 1999-12-16
PRIOR FILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-08-03
NUMBER OF SEQ ID NOS: 7059
SOFTWARE: PATENTING VET: 3.0
LENGTH: 2799
LENGTH: 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES FILE REPERENCE: 249-125
                                                                                                                                                                                                                                                                   ; ORGANISM: Corynebacterium glutamicum
US-09-738-626-2992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09738626 Publication No. US20020197605A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: NAKAGAWA, SATOSHI
APPLICANT: MIZOGUCHI, HIROSHI
APPLICANT: ANDO, SEIKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HAYASHI, MIKIRO
OCHIAI, KEIKO
YOKOI, HARUHIKO
TATEISHI, NAOKO
SENOH, AKIHIRO
IKEDA, MASATO
OZAKI, AKIO
                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: NAKAGAWA, SATOSHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-738-626-1/c
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                                                                                                                                                                               549 TTCCAATAAAAAAGTCCTCCATTTAGTTTATTTTATCACAGTTTTGTCCAAAAGGGGT 490
                                                                                                                     45 TITCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCTCCCAAAGCACC 104
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                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Altus, Christina M.; Difour, Gerard B.;
APPLICANT: Chalup, Michael S.; Jackson, Jennifer L.;
APPLICANT: Chalup, Michael S.; Jackson, Jennifer L.;
APPLICANT: Chalup, Michael S.; Jackson, Jennifer L.;
APPLICANT: Chalup, Michael J.; Gietzen, Darryl;
APPLICANT: Bradel J.; Gietzen, Darryl;
APPLICANT: Bradely, Diana L.; Robaer D.;
APPLICANT: Bradely, Diana L.; Robaer D.;
APPLICANT: Bradely, Diana L.; Robaec D.;
APPLICANT: Marel Marie H.; Panzer, Soctt R.;
APPLICANT: Marel Rakeel; Chen, Alice J.;
APPLICANT: Marel S.;
APPLICANT: Marel S.;
APPLICANT: Marel Rakeel; Chen, Alice J.;
APPLICANT: Marel S.;
APPLICANTION NUMBER: US 60/229,749
PRIOR FILING DATE: 2000-09-05
PRIOR PLING DATE: 2000-09-06
PRIOR 
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NUMBER OF SEQ ID NOS: 506
SOFTWARE: PERL Program
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Score 31; DB 17; Length 772;
Pred. No. 5.9;
0; Mismatches 40; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40; Indels
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; OTHER INFORMATION: Incyte ID No: LI:814261.1:2000SEP08
US-10-363-829-237
                                                                                                                                                                                                                                          105 ATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 237, Application US/10363829
Publication No. US20040142331A1
GENERAL INFORMATION:
   Query Match
Best Local Similarity 57.9%;
Matches 55; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 22.3
Best Local Similarity 57.9
Matches 55; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
US-10-363-829-237/c
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LENGTH: 810
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                                                                                                                                                                                                                                                                                                                                                                                                                                            17 AACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGG
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                                                                                                                                                                                                                                                                                                                                                       Score 30.6; DB 9; Length 3309400;
Pred. No. 2.6e+02;
0; Mismatches 54; Indels 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25806 ATTAAAAGAACGCTATCAAATCTATACCCCTTTTTTTGCTAAAA 25763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: EVANS, Glen
TITLE OF INVENTION: NANOMACHINE COMPOSITIONS AND METHODS OF
TITLE OF INVENTION: USE
FILE REFERENCE: PEA 4738
CURRENT APPLICATION NUMBER: US/09/960,870
CURRENT FILING DATE: 2001-09-20
NUMBER OF SEQ ID NOS: 19
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 13. Application US/09960858
Publication No. US20030138777A1
GENERAL INFORMATION:
APPLICANT: EVANB, Glen
TITLE OF INVENTION: NANOMACHINE COMPOSITIONS AND METHODS OF
TITLE OF INVENTION: USA
FILE REFERENCE: D-EA 4974
CURRENT FILING DATE: 2001-09-20
NUMBER OF SEQ ID NOS: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94 CCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAACA 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46; Indels
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CURRENT APPLICATION NUMBER: US/09/738,626
             CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR PLICATION NUMBER: JP 00/159162
PRIOR PLILING DATE: 2000-04-07
PRIOR PLILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-08-03
NUMBER OF SEQ ID NOS: 7059
                                                                                                                                                                                                                                                               TYPE: DNA OKGANISM: Corynebacterium glutamicum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 13, Application US/09960870; Publication No. US20030134281A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                     cn 22.0%;
l Similarity 53.8%;
63; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 55.8 Matches 58; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
CORGANISM: M. genitalium
US-09-960-870-13
                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 63; Conserv
                                                                                                                                                                                                                 SEQ ID NO 1
LENGTH: 3309400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
US-09-960-870-13/c
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                                                                                                                                                                                                                                                                                                           US-09-738-626-1
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25866 CCTCAGCCAATTTTTTTTAACCAAGTGGTGTTTTACCATCTGGTTTTGTCTTCTTGTC 25807
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Bublication No. US20040137566A1

GENERAL INFORMATION:

APPLICANT: Tedder, Thomas F

APPLICANT: Liang, Yinghua

TITLE OF INVENTION: Identification of Novel Gene Family Members Expressed by
TITLE OF INVENTION: Hematopoietic Cells

FILE REFERENCE: 180/132 PCT/US

CURRENT APPLICATION UNDER: US/10/433,287

CURRENT APPLICATION UNDER: US/10/433,287

CURRENT FILING DATE: 2003-11-12

NUMBER OF SEQ ID NOS: 81

SOFTWARE PARENTIN VERSION 3.2

SEQ ID NO 79

LENGTH: 104644
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                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                34 CCTCACCCTCTTTCTTCAGAAAGAGGGGTGACTATTTGTCTGGTTTATTAACTGTTTATC
                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34 CCTCACCCTCTTTTCTTCAGAAGAGGGTGACTATTTGTCTGGTTTTATTAACTGTTTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                            Length 31241;
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Pred. No. 45;
0; Mismatches 46; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 13, Application US/10251668
| Publication No. US20040063097A1
| Publication No. US20040063097A1
| Publication No. US20040063097A1
| Publication No. US20040063097A1
| TITLE OF INVENTION: USA
| TITLE OF INVENTION: USA
| FILE REFERENCE: P-EA 544
| CURRENT APPLICATION NUMBER: US/10/251,668
| CURRENT PILICA DATE: 2002-09-20
| PRIOR FILING DATE: 2001-09-20
| PRIOR FILING DATE: 2001-09-20
| NUMBER OF SEQ ID NOS: 19
| SOFTWARE: FastSEQ for Windows Version 4.0
| SEQ ID NO 13
| LENGTH: 31241
                                                                                                                                                                                                                                                                                                                                                                                                                                                        25806 ATTAAAAGAACGCTATCAAATCTATACCCCTTTTTTTGCTAAAA 25763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25806 ATTAAAAGAACGCTATCAAATCTATACCCCTTTTTTGCTAAAA 25763
                                                                                                                                                                                                                                                                                                                                                                                                   94 CCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAACA 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94 CCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAACA 137
                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                            DB 10;
                                                                                                                                                                                                                                              46;
                                                                                                                                                                                      Score 30.4; DE
Pred. No. 45;
0; Mismatches
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21.9%;
                                                                                                                                                                                    Query Match
Best Local Similarity 55.8%;
Matches 58; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 55.8°
Matches 58; Conservative
                                                 LENGTH: 31241
; TYPE: DNA
; ORGANISM: M. genitalium
US-09-960-858-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: M. genitalium
US-10-251-668-13
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ORGANISM: homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
US-10-251-668-13/c
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88420 GAACCCAGATTATTCATGGCTAGGTCTATAGTTATAGGACTCAGAATACATTTTTACTG 88361
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76 GITTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGACTGTTCTTATTGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 ACTOTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAGAGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 GAACTTAAATAATGCCTGCCTCACCTTTTTTTTCTTCAGAAAGAGGGTGACTATTTGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 21.9%; Score 30.4; DB 17; Length 104644; Best Local Similarity 53.3%; Pred. No. 75; Matches 64; Conservative 0; Mismatches 56; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 21.9%; Score 30.4; DB 17; Length'109559; Best Local Similarity 55.8%; Pred. No. 77; Matches 58; Conservative 0; Mismatches 46; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 137, Application US/1032281
; Bequence 137, Application WS/1032281
; Publication No. US20040126762A1
; GENERAL INFORMATION:
; APPLICANT: David W. Morris
; APPLICANT: Marc S. Malandro
; TITLE REFERENCE: 229452001000
; CURRENT APPLICATION NUMBER: US/10/322,281
; CURRENT FILING DATE: 2002-12-17
; NUMBER OF SEQ ID NOS: 866
; SOFTWARE: FaetSEQ for Windows Version 4.0
; EBCTH: 109559
                                                                                                                                                   MS4A12 initial coding_region (91488)..(91760)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Mus musculus
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(109559)
CTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                  MS4A12 coding region (96148).. (96204)
                                                                                                                                                                                                                                                                                                                                                                                   MS4A12 coding region (100890)..(101000)
                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: MS4A12 coding region LOCATION: (101182)..(101283)
                                                                                                                                                                                                          MS4A12 coding region (95210)..(95347)
                                                                                                                                                                                                                                                                                                                           MS4A12 coding region (97865)..(97981)
                                     MS4A5 coding region (68118)..(68270)
                                                                                           MS4A5 coding region (82002)..(82109)
(66764) .. (66820)
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                                                                                                                                                     NAME/KEY: 1
LOCATION:
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LOCATION:
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                                                                                             NAME/KEY:
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NAME/KEY: genomic_DNA
LOCATION: (1)..(104644)
OTHER INFORMATION: n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GEY: misc feature
ION: (32640)..(32640)
INFORMATION: n is a, c, g, or t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AME/KEY: misc feature
OCATION: (11699)..(11699)
THER INFORMATION: n is a, c, g, or t
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NAME/KEY: MS4AS_initial_coding_region
TOCATION: (6402B)..(641B0)
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OCATION: (17493)..(17639)
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OCATION: (11659)
THER INFORMATION: n is a, c,
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NAME/KEY: MS4A5_coding_region
                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: (39)...(39)
OTHER INFORMATION: n is a, c,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MS4A7 coding region (19439)..(19573)
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SOCATION: (65149)..(65277)
                                                                                                                                                                                                        FEATURE:
NAME/KEY: misc_feature
LOCATION: (70)...(70)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                   IAME/KEY: misc feature
OCATION: (143)..(143)
YTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                           HATURE:
NAME/KEY: misc_feature
COCATION: (231)...(231)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAME/KEY: misc feature
OCATION: (362)..(362)
∀HER INFORMATION: n is a,
                                                                                         LOCATION: (1). (3)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                             OCATION: (73)...(73)
THER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AME/KEY: misc feature
OCATION: (242)...(242)
WHER INFORMATION: n is a,
                                                                         NAME/KEY: misc_feature
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NAME/KEY:
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Xu, Jiangchun
Dillon, Davin C.
Mitcham, Jennifer L.
Harlocker, Susan L.
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Henderson, Robert A.
Kalos, Michael D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Day, Craig H. Vedvick, Thomas S. Carter, Darrick Li, Samuel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fanger, Gary R.
Retter, Marc W.
Stolk, John A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 72.2
Matches 39; Conservative
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ORGANISM: Prunus persica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wang, Aijun
                                                                                                                                                                                                                   RESULT 13
US-10-600-070-201
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Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
FILE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(5)323)
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NOS: 285684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131756 Crcrcrrrrrrrrarragrzagcragiagccrarrrrarrarrrrrrrrrrrraaaa 131815
8124 AATCTGGCCCAATGTTCGCAGCAGTGACTCCGTAACTATCGTTATAAGAAAAGTCCACG 8065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39 CCCTCTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAA 98
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                                                                             3064 ACTITCTGTTTTGCACATGTTCTGTGTCTCCCACAGCAACATA 8021
                                                                                                                                                                                  Sequence 117, Application US/10367094

Publication No. US20040170982A1

GENERAL INPORMATION:

APPLICANT: David W. Morris

APPLICANT: Marc Malandro

TITLE OF INVENTION: Novel Therapeutic Targets in Cancer;
FILE REFERENCE: 529452001500

CURRENT APPLICATION NUMBER: US/10/367,094

CURRENT FILING DATE: 2003-02-14

NUMBER OF SEQ ID NOS: 203

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 117

LENGTH: 138363
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Clone ID: PAT_MRT3847_66052C.1
US-10-424-599-105245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
21.7%; Score 30.2; D
Best Local Similarity 56.6%; Pred. No. 99;
Matches 56; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: (1)..(458)
OTHER INFORMATION: unsure at all n locations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   i LOCATION: (1) ... (138363)
j OTHER INFORMATION: n = A,T,C or G
US-10-367-094-117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Thes 60; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-10-424-599-105245/c
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                                                                                                                                                                  US-10-367-094-117
                                          64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
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Gaps

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Conservative

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Sequence 201, Application US/10600070
Publication No. US20040139500A1
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Osteryoung, Katherine W.
TITLE OF INVENTION: Plastid Division and Related Genes and Proteins, and Methods of TITLE OF INVENTION: Use
TITLE OF INVENTION: Use
TITLE OF INVENTION: Use
CURRENT APPLICATION NUMBER: US/10/600,070
CURRENT FILING DATE: 2003-06-20
NUMBER OF SEQ ID NOS: 206
SOFTWARE: PatentIn version 3.2
SEQ ID NO 201
LIBRICH: 622
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                                                                  193 TCTAGGGCCTCAATTTATGTATGTATCTAGTTCATTTTATGTGAAAGATGAAGAAGTCCC 134
11 TCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTT 70
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APPLICANT: Hepler, William
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C23
                                                                                                                                     71 GTCTGGTTTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGAC 120
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CURRENT FILING DATE: 2001-01-12
NUMBER OF SEQ ID NOS: 934
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NAME/KEY: misc feature
NOCATION: (609)...(609)
COTHER INFORMATION: n is a, c, g, or t
US-10-600-070-201
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Patent No. US2002002248A1
GENERAL INFORMATION:
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US-09-232-880-293
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APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Hepler, William
APPLICANT: Hotal, John
APPLICANT: House, Waymond L.
APPLICANT: Houghton, Raymond L.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: 1103081 OF PROSTATE CANCER
FILE REFERENCE: 210121.427024
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                                                                                                                                           DB 9; Length 301;
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                                                                                                                                       Query Match
21.4%; Score 29.8; Di
Best Local Similarity 56.7%; Pred. No. 10;
Matches 55; Conservative 0; Mismatches
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Pred. No. 10;
0; Mismatches
  FastSEQ for Windows Version 3.0
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FastSEQ for Windows Version 3.0
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CURRENT FILING DATE: 2001-02-09
NUMBER OF SEQ ID NOS: 943
SOFTWARE: FastSEQ for Windows Version 3 (
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 293, Application US/09780669
Patent No. US20020051977A1
GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Harlocker, Susan L.
APPLICANT: Handerson, Robert A.
APPLICANT: Henderson, Robert A.
APPLICANT: Kalos, Michael D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fanger, Gary R.
Retter, Marc W.
Stollk, John A.
Day, Craig H.
Vedvick, Thomas S.
Carter, Darrick
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21.4%;
Best Local Similarity 56.7%;
Matches 55; Conservative
                                                           ; TYPE: DNA
; ORGANISM: Homo sapien
US-09-759-143-293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo sapien
US-09-780-669-293
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US-09-780-669-293
SOFTWARE: Far
SEQ ID NO 293
LENGTH: 301
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APPLICANT:
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RESULT 16 US-09-822-827-293

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43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
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Publication No. US20020182596A1

GENERAL INCOMMATION:

APPLICANT: City Jiangchun

APPLICANT: Dillon, Davin C.

APPLICANT: Mitcham, Jennifer Lynn

TITLE OF INVENTION: COMPOUNDS FOR IMMUNODIAGNOSIS OF

TITLE OF INVENTION: COMPOUNDS FOR IMMUNODIAGNOSIS OF

TITLE OF INVENTION: PROSTATE CANCER AND METHODS FOR THEIR USE

FILE REFERENCE: 210121.42866

CURRENT FILING DATE: 1999-01-15

NUMBER OF SEQ ID NOS: 338

SOFTWARE: PSELSEQ for Windows Version 3.0

SEQ ID NO 293

LENGTH: 301
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Sequence 293, Application US/09822827
Patent No. US20020081680A1
GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER;
FILE REFERENCE: 210121.534C1
CURRENT APPLICATION NUMBER: US/09/822,827
CURRENT FILING DATE: 2001-03-28
NUMBER OF SEQ ID NOS: 982
SEQ ID NO 293
LENGTH: 301
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21.4%; Score 29.8; D
Best Local Similarity 56.7%; Pred. No. 10;
Matches 55; Conservative 0; Mismatches
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Publication No. US20020192763A1
Publication No. US20020192763A1
APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Harlocker, Susan L.
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21.4%;
Best Local Similarity 56.7%;
Matches 55; Conservative
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US-09-822-827-293
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; ORGANISM: Homo sapien
US-09-232-880-293
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APPLICANT: Wantanabe, Yoshihiro
APPLICANT: Meagher, Madeleine Joy
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
TITLE OF INVENTION: UNMBER: US/10/012,896
CURRENT FILING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 1011
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 293
LENGTH: 200
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FILE REPERENCE: 210121.427C26
CURRENT PEPLICATION NUMBER: US/09/895,814
CURRENT FILING DATE: 2001-06-29
NUMBER OF SEQ ID NOS: 990
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 293
LENGTH: 301
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Houghton, Raymond L.
Vinals de Bassols, Carlota
Foy, Teresa
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Publication No. US20020183251A1
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| Sequence 293, ...
| Sequence 293, ...
| Publication No. US...
| GENERAL INFORMATION:
| APPLICANT: XU, Jiangchun
| APPLICANT: Mitcham, Jennifer L. |
| APPLICANT: Jiang, Yuqiu |
| Tang, Mitcham L. |
| Tang, Mitc
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56.7%;
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Vedvick, Thomas S.
Carter, Darrick
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Hepler, William T.
                                                                                                                                                                                                                                                                                                                                                                                                                   55; Conservative
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                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Homo sapien
US-09-895-814-293
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Best Local Similarity
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Best Local Similarity
Matches 55; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Foy, Teresa
APPLICANT: Foy, Teresa
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.534C2
CURRENT APPLICATION NUMBER: US/09/895,793
CURRENT PILING DATE: 201-06-29
NUMBER OF SEQ ID NOS: 982
SOFTWARE: FASELSEQ for Mindows Version 3.0
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 301;
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Pred. No. 10;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                              Houghton, Raymond L.
Vinals de Bassols, Carlota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Houghton, Raymond L.
Vinals de Bassols, Carlota
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Publication No. US20020193296A1
GENERAL INFORMATION:
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APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Harlocker, Susan L.
APPLICANT: Jiang, Yuqiu
APPLICANT: Kalos, Michael D.
APPLICANT: Rater, Marc W.
APPLICANT: Stolk, John A.
                                                                                                                                                                                                                                                                                                                                                                                     Hural, John
McNeill, Patricia D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Henderson, Robert A.
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McNeill, Patricia D.
                                                                                                                                                                                                                                                                                                                                                 Henderson, Robert A
                                                        Retter, Marc W.
Stolk, John A.
Day, Craig H.
Vedvick, Thomas S.
Carter, Darrick
Li, Samuel X.
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56.7%;
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Skeiky, Yasir A.W.
Hepler, William T.
                                                                                                                                                                                                                                                                                      Skeiky, Yasir A.W.
Hepler, William T.
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Vedvick, Thomas S.
Carter, Darrick
                                 Kalos, Michael D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 55; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-895-793-293
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LENGTH: 301
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43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
APPLICANT: Foy, Teresa M.

APPLICANT: Watenabe, Yoshihiro

APPLICANT: Watenabe, Yoshihiro

APPLICANT: Deng, Ta

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND

TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER

FILE REFERENCE: 210121.427625

CURRENT APPLICATION NUMBER: US/10/144,678A

CURRENT FILING DATE: 2002-08-12

NUMBER OF SEQ ID NOS: 1033

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 293

LENTH: 301
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(S-10-294-025-293)

(Sequence 293, Application US/10294025)

(Publication No. US20030185830A1)

(SEGUERAL INFORMATION:
(APPLICANT: Xu, Jiangchun)
(APPLICANT: Stolk, John A.)
(APPLICANT: COMPANION: DIAGNOSIS OF PROSTATE CANCER
(APPLICATION NUMBER: US/10/294,025)
(CURRENT APPLICATION NUMBER: US/10/294,025)
(CURRENT FILING DATE: 2002-11-12
(NUMBER OF SEQ ID NOS: 1038)
(SEQ ID NO 293)
(LENGTH: 301)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 301;
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Publication No. US20030109434A1
GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Mannion, Jane
APPLICANT: Gaiger, Alexander
APPLICANT: Gordon, Brian
                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
; ORGANISM: Homo sapiens
US-10-144-678A-293
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ORGANISM: Homo sapiens
US-10-294-025-293
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APPLICANT: Dillon, Davin C.
APPLICANT: Milcham, Jennifer L.
APPLICANT: Harlocker, Susan Louise
APPLICANT: Harlocker, Susan Louise
APPLICANT: Harlocker, Susan Louise
APPLICANT: Harlocker, Susan Louise
APPLICANT: Ralos, Michael
APPLICANT: Ralos, Michael
APPLICANT: Ralos, Michael
APPLICANT: Ralos, Michael
APPLICANT: Rols, John Compositions of PROSTATE CANCER
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY AND
TITLE OF INVENTION: COMPOSITIONS OF PROSTATE CANCER
FILE REFERENCE: 210121.42703
CURRENT APPLICANTON NUMBER: US/10/010,940
CURRENT FILING DATE: 2001-12-05
NUMBER OF SEQ ID NOS: 575
SOFTWARE: FartSEQ for Windows Version 3.0
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                                            103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                        90 AATCAATCAATGGCCTAGAGCACTGACTGTTAACACA 126
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Publication No. US20030157089A1
GENERAL INFORMATION:
APPLICANT: W. Jiangchun
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Harlocker, Susan L.
APPLICANT: Handerson, Robert A.
APPLICANT: Henderson, Robert A.
APPLICANT: Henderson, Robert A.
APPLICANT: Ralos, Michael D.
APPLICANT: Renger, Gary R.
APPLICANT: Retter, Marc W.
APPLICANT: Stolk, John A.
APPLICANT: Carter, Darrick
APPLICANT: Vedevick, Thomas S.
APPLICANT: Carter, Darrick
APPLICANT: Li, Samuel X.
                                                                                                                                                                                                                                                      Sequence 293, Application US/10010940; Publication No. US20030088062A1; GENERAL INFORMATION:
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Skeiky, Yasir A. W.
Hepler, William T.
Hural, John
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Houghton, Raymond L.
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US-10-010-940-293
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Best Local Similarity
Matches 55; Conserv
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LENGTH: 301
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APPLICANT: Harlocker, Susan L.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: THERAPY AND DIAGNOSIS OF KIDNEY CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Mannion, Jane
APPLICANT: Gaiger, Alexander
APPLICANT: Gordon, Brian
APPLICANT: Gordon, Brian
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: THERAPY AND DIAGNOSIS OF KIDNEY CANCER
FILE REFERENCE: 210121.572
CURRENT APPLICATION NUMBER: US/10/102,524
CURRENT FILING DATE: 2002-03-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
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0: Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
21.4%; Score 29.8; D
Best Local Similarity 56.7%; Pred. No. 12;
Matches 55; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
21.4%; Score 29.8;
Best Local Similarity 56.7%; Pred. No. 12
Matches 55; Conservative 0; Mismatche
                                                                  FILE REFERENCE: 21011.572
CURRENT APPLICATION NUMBER: US/10/102,524
CURRENT FILING DATE: 2002-03-19
NUMBER OF SEQ ID NOS: 1863
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 1863
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc_feature

1 LOCATION: 44, 177, 178

2 CTHER INFORMATION: n = A,T,C or G

US-10-102-524-307
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                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
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RESULT 26
US-10-027-632-81146
S. Sequence 81146 Application US/10027632
Publication No. US20020198371A1
GENERAL INFORMATION:

APPLICANT: Wang, David G.

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318 CAGCTTCACTCTTGCTTACATATAAGGTCTGTGGCTGCTTTCATGCTACAACAACTGTTT 377
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GENERAL INFORMATION:
APPLICANT: Wang, David G.
TITLE OF INVENTION: IGENTIFICATION Human Genome
FILE REFERENCE: 108827.129
CURRENT APPLICATION NUMBER: US/10/027,632
CURRENT PILING DATE: 2002-04-30
PRIOR PILING DATE: 2000-04-30
PRIOR PLILING DATE: 2000-04-20
PRIOR PLILING DATE: 2000-04-24
PRIOR PLILING DATE: 2000-02-24
PRIOR PLILING DATE: 1999-11-23
PRIOR PLILING DATE: 1999-11-23
PRIOR PLILING DATE: 1999-11-23
PRIOR PLILING DATE: 1999-11-23
PRIOR PLILING DATE: 1999-09-28
PRIOR PLILING DATE: 1999-08-09
NUMBER OF SEQ ID NOS: 325720
SOFTWARE: PASISEQ FOR WINGOWE VERSION 4.0
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THILE OF INVENTION: POLYMOTPDISMS IN THE HUR HILD THE REPERRICE: 10827.129
CURRENT APPLICATION NUMBER: US/10/027,632
CURRENT FILING DATE: 2002-04-30
PRIOR APPLICATION NUMBER: US 60/18,006
PRIOR FILING DATE: 2000-07-12
PRIOR PELING DATE: 2000-04-20
PRIOR PILING DATE: 2000-04-20
PRIOR PILING DATE: 2000-03-29
PRIOR PILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/185,218
PRIOR PILING DATE: 1090-01-23
PRIOR PILING DATE: 1999-11-23
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PRIOR PILING DATE: 1999-06-88
PRIOR PILING DATE: 1999-08-88
PRIOR PILING DATE: 1999-09-88
PRIOR PILING DATE: 1999-08-88
PRIOR PILING DATE: 1999-08-09
NUMBER: OF SEC ID NOS: 325720
SECTION NO 81146
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; Sequence 81146, Application US/10027632
; Publication No. US20030204075A9
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Best Local Similarity 56.7%;
Matches 55; Conservative
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US-10-027-632-81146
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ORGANISM: Human
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; ORGANISM: Human
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; Publication No. US2020198371A1
; GENERAL INFORMATION:
    GENERAL INFORMATION:
    APPLICANT: Wang, David G.
    TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
    TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
    TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
    TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
    TITLE OF INVENTION: POLYMORPHEN: US/10/027,632
    CURRENT FFLING DATE: 2002-04-30
    FRIOR APPLICATION NUMBER: US 60/198,676
    FRIOR FILING DATE: 2000-07-12
    FRIOR APPLICATION NUMBER: US 60/193,483
    FRIOR PILING DATE: 2000-03-29
    FRIOR PLING DATE: 2000-03-29
    FRIOR PLING DATE: 2000-03-29
    FRIOR PLING DATE: 1999-09-28
    FRIOR FILING DATE: 1999-11-23
    FRIOR FILING DATE: 1999-09-28
    FRIOR FILING DATE: 1999-09-28
    FRIOR FILING DATE: 1999-08-08
    FRIOR FILING DATE: 1999-08-08
    FRIOR FILING DATE: 1999-08-08
    FRIOR FILING DATE: 1999-08-09
    NUMBER OF SEQ ID NOS: 325720
    SEOFTREE FRASESEQ FOR WINDOWS VERSION 4.0
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US-10-027-632-109769
US-10-027-632-109769
Sequence 109769, Application US/10027632
Fublication No. US20030204075A9
GENERAL INFORMATION:
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
TITLE OF INVENTION: POJYmorphisms in the Human Genome
FILE REPERENCE: 10882710
CURRENT APPLICATION NUMBER: US/10/027,632
CURRENT FILING DATE: 2002-04-30
FRIOR APPLICATION NUMBER: US 60/218,006
FRIOR REPLIATION NUMBER: US 60/218,006
FRIOR PELICATION NUMBER: US 60/218,006
FRIOR APPLICATION NUMBER: US 60/198,676
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21.4%; Score 29.8; DB 13; Length 'Best Local Similarity 56.7%; Pred. No. 12;
Matches 55; Conservative 0; Mismatches 42; Indels
   Score 29.8; DB 15; Length Pred. No. 12; 0; Mismatches 42; Indels
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Query Match
Best Local Similarity
Matches 55; Conserv
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US-10-027-632-109769
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US-10-027-632-109769
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APPLICANT: Young, Paul
TITLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using Cance
TITLE OF INVENTION: Sets
FILE REFERENCE: 689290-76
CURRENT APPLICATION NUMBER: US/09/954,456
CURRENT FILING DATE: 2001-09-18
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Pred. No. 12;
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PRIOR APPLICATION NUMBER: US 60/185,218
PRIOR APPLICATION NUMBER: US 60/167,363
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PRIOR FILING DATE: 1999-08-8
PRIOR FILING DATE: 1999-08-09
NUMBER OF SEQ ID NOS: 325/20
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 109769
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PRIOR FILING DATE: 2000-09-18
PRIOR FILING DATE: 2000-09-18
PRIOR FILING DATE: 2000-09-18
PRIOR APPLICATION NUMBER: US/60/234,052
PRIOR PILING DATE: 2000-09-25
PRIOR PILING DATE: 2000-09-26
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PRIOR PILING DATE: 2000-09-26
PRIOR PILING DATE: 2000-09-26
PRIOR PILING DATE: 2000-09-27
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Patent No. US20020115057A1
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OTHER INFORMATION: n=a,t,g or c
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ORGANISM: Homo sapiens
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Best Local Similarity
Matches 55; Conserv
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                                            0; Gaps
Query Match 21.4%; Score 29.8; DB 9; Length 492; Best Local Similarity 56.7%; Pred. No. 12; Matches 55; Conservative 0; Mismatches 42; Indels C
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Sequence Sequence Sequence

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Sequence Sequence Sequence

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        version - 2004 (
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Maximum Match 100%
Listing first 100 summaries
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Perfect score:
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Sequence 3 Sequence 1 Sequence 1 Sequence 1 Sequence 6 Sequence 1 Sequence 1 Sequence 1 Sequence 1

Sequence 1, Appli Sequence 19, Appli Sequence 19, Appli Sequence 19, Appli Sequence 1168, Appli Sequence 1168, Appli Sequence 1168, Appli Sequence 1168, Appli Sequence 1901, Appli Sequence 1901, Appli Sequence 1901, Appli Sequence 1901, Appli Sequence 16, Appli Sequence 16, Appli Sequence 16, Appli Sequence 15, Appli

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APPLICANT: Dillon, Davin C.
APPLICANT: Harlocker, Susan Louise
APPLICANT: Harlocker, Susan Louise
APPLICANT: Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: Mitcham, Oenifer Lynn
APPLICANT: ALINE MITCHAM, Jennifer Lynn
APPLICANT: Je
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APPLICANT: Micham, Jennifer L.
APPLICANT: Micham, Jennifer L.
APPLICANT: Micham, Jennifer L.
APPLICANT: Micham, Jennifer L.
APPLICANT: Feed, Steven G.
APPLICANT: Reed, Steven G.
APPLICANT: Retter, Michael
APPLICANT: Retter, Mark
APPLICANT: Confortion Compositions AND METHODS FOR THERAPY AND TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C9
CURRENT APPLICATION MURBER: 1999-11-12
CURRENT FILING DATE: 1999-11-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
21.4%; Score 29.8; DB 3; Length 301;
Best Local Similarity 56.7%; Pred. No. 0.43;
Matches 55; Conservative 0; Mismatches 42; Indels
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56.7%; Pred. No. 0.43;
ive 0; Mismatches 42; Indels
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SOFTWARE: FastSEQ for Windows Version 3.0
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Patent No. 6395278
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Patent No. 6329505
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ORGANISM: Homo sapien
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ORGANISM: Homo sapien
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Best Local Similarity
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US-09-352-616A-293
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LENGTH: 301
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Patent No. 6613872

GENERAL INFORMATION:

APPLICANT: Xu, Jangchun

APPLICANT: Dillon, Davin C.

TITLE OF INVENTION: ROOMPOUNDS FOR IMMUNOTHERAPY OF

TITLE OF INVENTION: ROSTATE CANCER AND METHODS FOR THEIR USE

FILE REPREBRIES. 210121.428C5

CURRENT APPLICATION NUMBER: US/09/159,812A

CURRENT FILING DATE: 1998-09-23

NUMBER OF SEQ ID NOS: 306

SOFTWARE: PastSEQ for Windows Version 3.0

LENGTH: 301
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; Sequence 299, Application US/09232149A
; Patent No. 6456511
; GENERAL INFORMATION:
; APPLICANT: Xu, Jiangchun
; APPLICANT: Xu, Jiangchun
; APPLICANT: Mitcham, Davin C.
; TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE
; TITLE OF INVENTION: CANCER AND METHODS FOR THEIR USE
; TITLE OF INVENTION: CANCER AND METHODS FOR THEIR USE
; CURRENT APPLICATION NUMBER: US/09/232,149A
; CURRENT FILICATION NUMBER: US/09/232,149A
; SOFTWARE: PSECSEQ for Windows Version 3.0
; SEQ ID NO 293
; LENGTH: 301
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                                                                                                                                                                        90 AATCAATCAATGGCCTAGAGCACTGACTGTTAACACA 126
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Best Local Similarity 56.7%;
Matches 55; Conservative
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US-09-232-149A-293
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US-09-159-812-293
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; APPLICANT: Hepler, William
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
; TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
; FILE REFRENCE: 210121.427C21
; CURRENT APPLICATION NUMBER: US/09/685,166A
; CURRENT FILING DATE: 2000-10-10
; NUMBER OF SEQ ID NOS: 898
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 293
; LENGTH: 301
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Patent No. 6664377
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US-09-679-426-293
'Sequence 293, Application US/09679426
'Patent No. 6759515
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Dillon, Davin C.
Mitcham, Jennifer L.
Harlocker, Susan L.
Jiang, Yuqui
Henderson, Robert A.
Kalos, Michael D.
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Best Local Similarity 56.7
Matches 55; Conservative
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Best Local Similarity 56.77
Matches 55; Conservative
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CORGANISM: Homo sapien
US-09-688-489-293
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US-09-685-166A-293
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APPLICANT: Xu, Jian
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APPLICANT: Retter, Marc W.
APPLICANT: Stolk, John A.
APPLICANT: Day, Craig H.
APPLICANT: Carter, Darrick
APPLICANT: Carter, Darrick
APPLICANT: Jamuel
APPLICANT: Wang, Aijun
APPLICANT: Resiry, Yasir A.W.
APPLICANT: Hepler, William
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
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        90 AATCAATCAATGGCCTAGAGCACTGACTGTTAACACA 126
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FastSEQ for Windows Version 3.0
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CURRENT APPLICATION NUMBER: US/09/636,215
CURRENT FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 852
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Patent No. 6630305
GENERAL INFORMATION:
                                                                                                                              ; Sequence 293, Application US/09636215; Patent No. 6620922
                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Miccham, Jennifer L.
APPLICANT: Harlocker, Susan L.
APPLICANT: Henderson, Robert A.
APPLICANT: Henderson, Robert A.
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APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Harlocker, Susan L.
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Henderson, Robert A.
Kalos, Michael D.
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Vedvick, Thomas S.
Carter, Darrick
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Wang, Aijun
Skeiky, Yasir A.W.
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Retter, Marc W.
Stolk, John A.
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ORGANISM: Homo sapien
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US-09-685-166A-293
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LENGTH: 301
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APPLICANT:
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43 CITITCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
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21.4%; Score 29.8; DB 4; Length 301; 56.7%; Pred. No. 0.43; tive 0; Mismatches 42; Indels
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56.7%; Pred. No. 0.43;
ive 0; Mismatches 42; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Jennifer Lynn
APPLICANT: COMPOUNDS FOR IMMUNOTHERAPY OF PROST
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROST
FILE REFRENCE: 210121.1427D2
CURRENT APPLICATION NUMBER: US/09/688,489
CURRENT FILING DATE: 2000-10-13
NUMBER OF SEQ ID NOS: 338
SOFTWARE: FASESEQ for Windows Version 3.0
IENGTH: 301
                                                                                                                                                                                                                                                                          103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
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NAME/KEY: misc feature
LOCATION: (B) LÕCATION 1...1140
SEQUENCE DESCRIPTION: SEQ ID NO: 1865:
                                                                                      TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Enterococcus faecium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/673,395A
CURRENT FILING DATE: 2000-10-17
NUMBER OF SEQ ID NOS: 637
SEQ ID NO 82
LENGTH: 2143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-673-395A-82/c
; Sequence 82, Application US/09673395A
; Patent No. 6620932
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 86, Application US/09489847; Patent No. 6476195; GENERAL INFORMATION:
                            LENGTH: 1140 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 56.7
Matches 55, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             371 TTTCC 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90 TATCC 94
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
ENTEROCOCCUS FAECIUM FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCA 102
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APPLICANT: Hepler, William
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSITS OF PROSTATE CANCER
FILE REFERENCE: 210121.427020
CURRENT APPLICATION NUMBER: US/09/679,426
CURRENT APPLICATION NUMBER: US/09/679,426
NUMBER OF SEQ ID NOS: 895
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 29.8; DB 4; Length 301;
Pred. No. 0.43;
0; Mismatches 42; Indels
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CORRESPONDENCE ADDRESS:
ADDRESSEE: GENOME THERAPEUTICS CORPORATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/107,532A
FILING DATE: 30-Jun-1998
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (781)893-5007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/085,598
FILING DATE: 14 May 1998
APPLICATION NUMBER: 60/051571
FILING DATE: July 2, 1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
US-09-107-532A-1865/c
; Sequence 1865, Application US/09107532A
; Patent No. 6583275
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 02354
COMPUTER READABLE FORM:
MEDIUM TYPE: CD/ROM ISO9660
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OPERATING SYSTEM: <Unknown>
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CITY: Waltham
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INFORMATION FOR SEQ ID NO: 1865:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: Massachusetts
COUNTRY: USA
Fanger, Gary R.
Retter, Marc W.
Stolk, John A.
Day, Craig H.
Vedvick, Thomas S.
Carter, Darrick
Li, Samuel
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Best Local Similarity 56.7%;
Matches 55; Conservative
                                                                                                                                                    Wang, Aijun
                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapien
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LENGTH: 301
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APPLICANT:
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                                                                                                                                                                                                          431 CCTAGTTCACCCACTTCTTCTCCGACAGTGGCTAATAATTTGACTGTTCCGTTAAATGGT 372
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APPLICANT: HINZAANN, BERND
APPLICANT: HINZAANN, BERND
APPLICANT: SCHMITT, ARMIN
APPLICANT: PILARSKY, CRRISTIAN
APPLICANT: DAHL, EDGAR
APPLICANT: ROSBWTHAL, ANDRE
TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES FROM UTERUS TUMOR TISSUE
FILE REFERENCE: ALBRE-12
                                                                                                                                      30 CCTGCCTCACCCTCTTTCTTCAGAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTT
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Query Match 21.4%; Score 29.8; DB 4; Length 1140; Best Local Similarity 66.2%; Pred. No. 0.76; Matches 43; Conservative 0; Mismatches 22; Indels 0
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TITLE OF INVENTION: 98 Human Secreted Proteins
FILE REFERENCE: PZ031P1
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1119 criscititasicoscrigaaraarticoscascaacias esta asta a 1178
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                                                                                                                           DB 4; Length 16593;
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APPLICANT: Lee, Ving
APPLICANT: Lee, Ving
APPLICANT: Malouin, Francois
APPLICANT: Martin, Patrick K.
APPLICANT: Schmid, Molly B.
APPLICANT: Martin, Patrick K.
APPLICANT: Molly B.
APPLICA
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                                                                                                                 Score 29.2; DB pred. No. 3.9; 0; Mismatches
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52.5%; Pred. No. 2.2;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/714,918
FILING DATE: September 13, 1996
CLASSIFICATION ATA:
APPLICATION NUMBER: 60/009,102
FILING DATE: December 22, 1995
APPLICATION NUMBER: 60/003,798
FILING DATE: September 15, 1995
APPLICATION NUMBER: 60/003,798
FILING DATE: September 15, 1995
ATTORNEY/AGENT INFORMATION:
NAME: WATADLY REFERENCE/DOCKET NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 32,327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 71, Application US/08714918 Patent No. 6037123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: Lyon & Lyon
633 West Fifth Street
Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                           21.0%;
81.0%;
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                                                                                                                    Query Match
Best Local Similarity 81.04
Matches 34; Conservative
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TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 52.5
Matches 62; Conservative
      double
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STRANDEDNESS: single
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California
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COUNTRY: U.S.A.
ZIP: 90071-2066
                                     linear
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                                                                                                                                                                                                                                                   39 CCCTCTI
      STRANDEDNESS:
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                               ; TOPOLOGY:
US-08-961-527-52
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US-08-961-57-52/C
US-08-961-57-52/C

Sequence 52, Application US/08961527

Sequence 52, Application US/08961527

Patent No. 6420135

GENERAL INFORMATION:
TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences

TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences

NUMBER OF SEQUENCES: 391

CORRESPONDENCE ADDRESS:

ADDRESSE: Human Genome Sciences, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1767 CTGTTCTCACTGAAAAGTCTGGCTAATGCTCTTGTGTAGTCACTTCTGATTCTGACAATC 1826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 CTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCCAAAGCA 102
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 20850
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
COMPUTER: HP Vectra 486/33
OPERATING SYSTEM: MSDOS version 6.2
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/961,527
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103 CCATAATCAACGCTAGACTGTTCTTATTGTTAACACA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 9410 Key West Avenue
CITY: Rockville
STATE: Maryland
COUNTRY: USA
            Query Match
21.4%; Score 29.8; Di
Best Local Similarity 56.7%; Pred. No. 1.2;
Matches 55; Conservative 0; Mismatches
APPLICATION NUMBER: US/09/489,847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT
NAME: Brookes, A. Anders
REGISTRATION UNMBER: 36,373
REFERENCS/DOCKET NUMBER: PB340P1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8512
INFORMATION FOR SEQ ID NO: 52:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 16593 base pairs TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
CORGANISM: Homo sapiens
US-09-489-847-86
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윱 ઠે us-10-070-882a-2.rni

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RESULT 16
US-09-266-417-71
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CITY: LC
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                                                               1179 ccitraccertifitagcaacaritgcracaggacarcccaratraagrctargccrit 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1179 ccrracccrritriagcaacarritgcracaggacarcccararritaagrcrargccrrr 1236
67 ATTIGECTIGGITTATIAACTGITTATCCCCCAAAGCACCATAATCAACGCTAGACTGTT 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67 ATTIGICIGGITTATTAACTGITTATCCCCAAAGCACCATAATCAACGCTAGACTGIT 124
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                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Lem. Ving J.
APPLICANT: Malouin, Francois
APPLICANT: Malouin, Paricic K.
APPLICANT: Malouin, Paricic K.
APPLICANT: Sun, Dongxu
TITLE OF INVENTION: METHODS OF SCREENING FOR COMPOUNDS
TITLE OF INVENTION: ACTIVE ON STAPHYLOCOCCUS AUREUS
TITLE OF INVENTION: TARGET GENES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS: 110
CORRESPONDENCE LYON
ADDRESSE: LYON ELYON
CONTRACTOR OF TARGET COMPOUNDS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 71, Application US/09265315
Patent No. 6187541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
STREET: Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : 3010 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 52.58
Matches 62, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TOPOLOGY: linear
US-09-265-315-71
                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Benton.
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1119 Criscittagicscritgaaraartricgcaacaacarcaggictraagartaagcceganc 1178
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                                                                          APPLICANT: Bencon, Bret
APPLICANT: Lee, Ving J.
APPLICANT: Maloun, Francois
APPLICANT: Maloun, Francois
APPLICANT: Martin, Fatrick K.
APPLICANT: Schmid, Molly B.
APPLICANT: Sun, Dongxu
TITLE OF INVENTION: METHODS OF SCREENING FOR COMPOUNDS
TITLE OF INVENTION: METHODS OF SCREENING FOR COMPOUNDS
TITLE OF INVENTION: ACTIVE ON STAPHYLOCOCCUS AUREUS
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lyon & Lyon
STREET: Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20.9%; Score 29; DB 3; Length 3010; ilarity 52.5%; Pred. No. 2.2; Conservative 0; Mismatches 56; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb MEDIUM TYPE: BLORGALIDE
COMPUTER: 1BM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/265,315
FILING DATE: WATCH 9, 1999
TILING DATE: September 13, 1996
APPLICATION NUMBER: 60/003,798
FILING DATE: December 22, 1995
APPLICATION NUMBER: 60/003,798
FILING DATE: September 12, 1995
APPLICATION NUMBER: 60/003,798
FILING DATE: September 15, 1995
ATTORNEY AGENT INFORMATION:
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Sequence 71, Application US/09265315 Patent No. 6187541 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (213) 955-0440
TELEX: (7-3510
INFORMATION FOR SEQ ID NO: 71:
SEQUENCE CHARACTERISTICS:
LENGTH: 30.10 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 24
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (213) 489-1600
TELEFAX: (213) 955-0440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Los Angeles
STATE: California
COUNTRY: U.S.A.
ZIP: 90071-2066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Them 62; Conserval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TOPOLOGY: linear
US-09-265-315-71
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Sun, Dongxu
TITLE OF INVENTION: STAPHYLOCOCCUS AUREUS ANTIBACTERIAL
TARGET GENES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 20.9%; Score 29; DB 4; Length 3010; Best Local Similarity 52.5%; Pred. No. 2.2; Matches 62; Conservative 0; Mismatches 56; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 17-Mar-2000
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION DATA: US/08/714,918
FILING DATE: September 13, 1996
APPLICATION NUMBER: 60/009,102
FILING DATE: December 22, 1995
ATONNEY/AGENT INFORMATION:
NAME: Warblurg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 222/005
TELECOMMUNICATION NINPORMATION:
                                                                                                                                                                                                                                                                                                                    CITY: Los Angeles
STATE: California
COUNTRY: U.S.A.
ZIP: 90071-2066
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/528,709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TOPOLOGY: linear; SEQUENCE DESCRIPTION: SEQ ID NO: 71: US-09-528-709-71
Lee, Ving
Malouin, Francois
Martin, Patrick K.
Schmid, Molly B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (213) 489-1600
TELEFAX: (213) 955-0440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 71:
SEQUENCE CHRACTERISTICS:
LENGTH: 3010 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  storage
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                         APPLICANT: Malou...,
APPLICANT: Martin, Parrick A.
APPLICANT: Schmid, Molly B.
APPLICANT: Schmid, Molly B.
APPLICANT: Sun, Dongxu
ITLLE OF INVENTION: METHODS OF SCREENING FOR COMPOUNDS
TITLE OF INVENTION: TARGET GENES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSE: Lyon & Lyon
STREET: Suite 4700
STREET: Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 3; Length 3010;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 20.9%; Score 29; DB 3
Best Local Similarity 52.5%; Pred. No. 2.2;
Matches 62; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Los Angeles
STAKET: SULLE 1: California
COUNTRY: U.S.A.
ZIP: 90071-2066
COMPUTER READABLE FORM:
MEDIUM TYPE: SLORAGE
COMPUTER: IBM COMPALIBLE
COMPUTER: IBM COMPALIBLE
COMPUTER: WARCH PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/266,417
FILING DATE: March 9, 1999
CLASSIFICATION WHERE: 08/14,918
FILING DATE: September 13, 1996
APPLICATION NUMBER: 60/003,709
FILING DATE: September 13, 1996
APPLICATION NUMBER: 60/003,709
FILING DATE: September 13, 1995
APPLICATION NUMBER: 60/003,709
FILING DATE: September 13, 1995
APPLICATION NUMBER: 2, 1995
ATORNEY AGENT INFORMATION:
RECISTRATION NUMBER: 32, 327
REFERENCE/DOCKET NUMBER: 240/248
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION NUMBER: 32, 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 17
US-09-528-709-71
; Sequence 71, Application US/09528709
; Patent No. 6630303
; GENERAL INFORMATION:
. APPLICANT: Benton, Bret
Sequence 71, Application US/09266417
Patent No. 6228588
                                                                                                      Lee, Ving J.
Malouin, Francois
Martin, Patrick K.
Schmid, Molly B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 3010 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                     Benton, Bret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 roPoLoGY: linear
                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-266-417-71
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1119 criectrragreectrigaaraarracecaecaacercaegrerraagarraagecegane 1178 7 CTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGGTGACT 66 1179 ccińaccerrithagcaacaringchacagacarcccararinaagrchargcerin 1236 6) ATTIGTCTGGTTTATTAACTGTTTATCCCCAAAGCACCATAATCAACGCTAGACTGTT 124 0; Gaps Sequence 71, Application US/09527745; Patent No. 6638718; GENERAL INFORMATION: APPLICANT: Benton, Bret
Lee, Ving
Malouin, Prancois
Martin, Patrick K.
Schmid, Molly B.

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56 AGAGGCTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCACCATAATCAACGC 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 28.8; DB 1; Length 2347;
Pred. No. 2.3;
0; Mismatches 32; Indels 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Marshall, O'Toole, Gerstein, Murray, ADDRESSEE: Borun
                                                                                                                                                          PatentIn Release #1.0, Version #1.25
                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/453,695A
                                                                                                                                                                                                                        FILING DATE:
CLASSIFICATION: 530
ATTORNEY/AGENT INPORMATION:
NAME: No. 5708143and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 32658
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 113, Application US/08268161A
Patent No. 5798224
GENERAL INFORMATION:
APPLICANT: Suzuki, Shintaro
TITLE OF INVENTION: Protocadherin N
NUMBER OF SEQUENCES: 115
CORRESPONDENCE ADDRESS:
                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               116 TAGACTGTTCTTATTGTTAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306 rrdacrrrrcraarrraaaa 287
                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 113: SEQUENCE CHARACTERESTICS: LENGTH: 2147 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20.7%;
                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 60.0°
Matches 48; Conservative
                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 20
US-08-268-161A-113/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: 11 MOLECULE TYPE:
                                                                                                                                                            SOFTWARE:
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TELEX: 25
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Sun, Dongxu
TITLE OF INVENTION: STAPHYLOCOCCUS AUREUS ANTIBACTERIAL
TARGET GENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 20.9%; Score 29; DB 4; Length 3010; Best Local Similarity 52.5%; Pred. No. 2.2; Matches 62; Conservative 0; Mismatches 56; Indels
                                                                                                                                                                                                                                                                                                                                                                         CURREATING SYSTEM: IBM FC. DOS 5.0
SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/527,745
FILING DATE: 17-Mar-200
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/714,918
FILING DATE: September 13, 1996
APPLICATION NUMBER: 60/003,798
FILING DATE: December 15, 1995
ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REJECTRATION NUMBER: 32,327
REJECTRATION NUMBER: 222/005
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                         ZIP: 90071-2066
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: SEQ ID NO: 71:
                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (213) 955-0440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 3010 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 67-3510
INFORMATION FOR SEQ ID NO: 71:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                              CITY: Los Angeles
STATE: California
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear
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Db 366 AGATGGGAGTTTTTCTGGTCCAATATTTCTA 307

Oy 116 TAGACTTTTTTTTTAA 135

Db 306 TTGACTTTTCTAATTTAAA 287

RESULT 20

US-08-268-161A-113/C

S SQUARCE 113/Application US/08268161A

FAPPLICANT SQUARA, Shintaro

ADDRESSER BOTTOR

ADDRESSER BOTTOR

ADDRESSER BOTTOR

CORRESPONDENCE 3D15

CORRESPONDENCE 3D15

CORRESPONDENCE 3D15

CONTRY: USA

STATE: 1111001s

COUNTRY: USA

STATE: 1111001s

COUNTRY: USA

SOFTWARE: Patentin Release #1.0, Version #1.25

COUNTRY: USA

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

REJECTATION OF AUGUST AND ASS

SOFTWARE: USA

SOFTWARE: USA

COUNTRY: USA

STATE: 111001S

COUNTRY: USA

STATE: 111001S

COUNTRY: USA

STATE: 111001S

COUNTRY: USA

STATE: 111001S

CONDUTER: LANG SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

FILLING DATE: June 27, 1994

FILLING DATE: June 27, 1994

FILLING DATE: June 27, 1994

FILLING DATE: WINGHER: 27666/32149

TELEPHONE: AUGUST AND NEORMATION:

TELEPHONE: 312/474-0408
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중 음 RESULT 19
US-08-453-695A-113/C
| Sequence 113, Application US/08453695A
| Patent No. 5708143
| GENERAL INFORMATION:
| APPLICANT: Suzuki, Shintaro
| TITLE OF SEQUENCES: 115
| NUMBER OF SEQUENCES: 115
| CORRESPONDENCE ADDRESS:
| ADDRESSEE: Marshall, O'Toole, Gerstein, Murray, & ADDRESSEE: Barun AnnRESSEE: Control of Con

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116 TAGACTGTTCTTATTGTTAA 135
                                                306 TTGACTTTTCTAATTTAAAA 287
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Matches
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                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                 Query Match 20.7%; Score 28.8; DB 1; Length 2347; Best Local Similarity 60.0%; Pred. No. 2.3; Matches 48; Conservative 0; Mismatches 32; Indels 0
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Pred. No. 2.3;
0; Mismatches 32; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 21
US-08-453-702A-113/C
US-08-453-702A-113/C
US-08-453-702A-113/C
SEQUENCE 113, Application US/08453702A
SECTION:
GENERAL INFORMATION:
TITLE OF INVENTION: Protocadherin Materials and Methods
NUMBER OF SEQUENCES: 115
NUMBER OF SEQUENCES: 115
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray, &
ADDRESSEE: Borun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/453,702A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 233 South Wacker, 6300 Sears Tower CITY: Chicago STATE: 111inois COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: No. 5891706and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 32657
TELECOMMUICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEPAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 60606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                        116 TAGACTGTTCTTATTGTTAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306 rrcacrrrrcraarrraaaa 287
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 113:
SEQUENCE CHARACTERISTICS:
LENGTH: 2347 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 113:
SEQUENCE CHARACTERISTICS:
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                        TOPOLOGY: linear HOLECULE TYPE: CDNA US-08-268-161A-113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-453-702A-113
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Matches
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56 AGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCACCATAATCAACGC 115
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Sequence 113, Application US/09099639
Patent No. 6262237
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Protocadherin Materials and Methods
NUMBER OF SEQUENCES: 115
CORRESPONDENCE ADDRESS:
ADDRESSEE: ADDRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protocadherin Materials and Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Marshall, O'Toole, Gerstein, Murray, & ADDRESSEE: Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 6300 Sears Tower, 233 S. Wacker Drive
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GENERAL INFORMATION:
APPLICANT: Suzuki, Shintaro
TITLE OF INVENTION: Protocadherin MG
NUMBER OF SEQUENCES: 115
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 TAGACTGTTCTTATTGTTAA 135
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 271
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 113:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2347 base pairs
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hes 48; Conservative
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: CDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Chicago
STATE: Illinois
COUNTRY: USA
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SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 11
LENGTH: 2676
                                                                                                                                                                                      Query Match 20.6%;
Best Local Similarity 64.2%;
Matches 43; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                    TYPE: DNA
ORGANISM: Mus musculus
US-09-212-971-11
                                                                                                                                                                                                                                                                                                                                                                                                                                           2611 TTAŤAA 2605
                                                                                                                                                                                                                                                                                                                                                                                         102 ACCATAA 108
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COUNTRY: USA
ZIP: 02110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-800-929A-11
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Patent No. 6107041

GENERAL INFORMATION:

APPLICANT: MacKenzie, Alexander E

APPLICANT: MacKenzie, Alexander E

APPLICANT: Histon, Peter

APPLICANT: Histon, Peter

APPLICANT: Haird, Stephen

APPLICANT: Baird, Stephen

APPLICANT: Pratt, Christine

TITLE OF INVENTION: DEIECTION AND MODULATION OF IAPS AND

TITLE OF INVENTION: DISEASE

TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE

TITLE OF INVENTION: DISEASE

TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE

TITLE OF INVENTION: DISEASE

TITLE OF INVENTION: DISEASE

TITLE OF INVENTION NUMBER: 06/017,354

SARLIER APPLICATION NUMBER: 60/017,354

EARLIER PILLING DATE: 1996-11-14

EARLIER APPLICATION NUMBER: 60/030,590

EARLIER APPLICATION NUMBER: 08/800,929

EARLIER APPLICATION NUMBER: 08/800,929

EARLIER PILLING DATE: 1997-02-13

NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SE AGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCCAAAGCACCATAATCAACGC 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   366 AGATGGAGACTTTTTTCTCGGTCCAAATATTTCCATGTCACCAATCTATAATAATATTATCTA 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 5; Length 2347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32; Indels
                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/08071
FILING DATE:
CLASSIFICATION DATA:
APPLICATION NUMBER: PCT/US93/12588
FILING DATE: 23 DEC 1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/12588
FILING DATE: 29 DEC 1992
ATONNEY/AGENT INPORMATION:
NAME: NO.Land, Greta E
REGISTRATION NUMBER: 35,302
REGISTRATION NUMBER: 35,302
REGISTRATION NUMBER: 35,302
REBERENCE/DOCKET NUMBER: 35,302
TELLEPRA: 312/474-6300
TELLEPRA: 312/474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20.7%; Score 28.8; DE 60.0%; Pred. No. 2.3; tive 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 113:
SEQUENCE CHARACTERISTICS:
LENGTH: 2347 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 60.0
Matches 48; Conservative
                             illinois
: USA
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Chicago
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US-09-212-971-11/c
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                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
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GENERAL INFORMATION:
APPLICANT: MacKenze, Alexander E
APPLICANT: MacKenze, Alexander E
APPLICANT: MacKenze, Alexander E
APPLICANT: MacKenze, Alexander E
APPLICANT: Diston, Peter
APPLICANT: Tesang, Benjamin K
APPLICANT: Tesang, Benjamin K
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MODULATION OF
TITLE OF INVENTION: DISEASE
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elbing LLP
STREET: 176 Federal Street
CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                         42 TCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCCAAAGC 101
                                                                                                                                           0; Gaps
Score 28.6; DB 3; Length 2676;
Pred. No. 2.9;
0; Mismatches 24; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READBLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: Diskette
COMPUTER: Diskette
COMPUTER: DISKETTEN
OPERATING SYSTEM: DOS
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION TATA:
APPLICATION TATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 60/030,590
FILING DATE: 14-NOV-1996
APPLICATION NUMBER: 60/017,354
FILING DATE: 26-APR-1996
APTORNEY, AGENT THORORMATION:
NAME: BIERET-BRACH, KRISTINA
REGISTRATION NUMBER:
CHERT AND CHERT A
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-428-0200
TELEPAX: 617-428-7045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-800-929A-11/c
; Sequence 11, Application US/08800929A
; Patent No. 6133437
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REGISTRATION NUMBER: 30,446
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STRANDEDNESS: double
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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US-08-781-986A-205/c
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Sequence 11, Application US/09617053A

Patent No. 6300492

GENERAL INFORMATION:

APPLICANT: MacKenzie, Alexander E

APPLICANT: Liston, Peter

APPLICANT: Liston, Peter

APPLICANT: Baird, Stephen

APPLICANT: Fang, Benjamin K

APPLICANT: Pratt, Christine

TITLE OF INVENTION: DISECTION AND MODULATION OF IAPS AND

TITLE OF INVENTION: DISEASE

TITLE OF INVENTION: DISEASE

FILE REPERENCE: 07891/009003

CURRENT APPLICATION NUMBER: US/09/617,053A

CURRENT APPLICATION NUMBER: US/09/617,053A

PRIOR FILING DATE: 1997-02-13

NUMBER OF SEQ ID NOS: 17

SOFTWARE: FREUSE: FREUSE: 1700-07-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 27
US-08-956-171E-205/C
US-08-956-171E-205, Application US/08956171E
Sequence 205, Application US/08956171E
Sequence 205, Application US/08956171E
Sequence 205, Application US/08956171E
GENERAL INFORMATION:
Craig H. Choi
Patrick S. Dillon
Craig A. Rosen
Michael R. Pannon
TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences NUMBER OF SEQUENCES: 5256
CORRESPONDENCE ADDRESS:
                                                                                                                                                2671 TTTTTTCTTTCAAAAAAAAGAGGTAATTATGTTGCTTTATTAACTTTTTCTCACAATTC 2612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2671 TITITICITIABAAAAAAAGAGGIAATIAIGFIGCITIATIAATAACTITITICITCACAAAITC 2612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42 TCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGC 101
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Query Match 20.6%; Score 28.6; DB 3; Length 2676; Best Local Similarity 64.2%; Pred. No. 2.9; Matches 43; Conservative 0; Mismatches 24; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 20.6%; Score 28.6; DB 3; Length 2676; Best Local Similarity 64.2%; Pred. No. 2.9; Matches 43; Conservative 0; Mismatches 24; Indels 0
                                                                                                     42 TCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Human Genome Sciences, Inc. STREET: 9410 Key West Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Rockville
STATE: Maryland
COUNTRY: USA
ZIP: 20850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                              2611 TTTATAA 2605
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US-09-617-053A-11/c
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LENGTH: 2676
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Search completed: December 22, 2004, 03:32:09
Job time : 75 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54 TAAATTAATACCTGGTATTAAAAATTTTAATAAGAAGGTGTTCAACTATGAACGTGGGTA 113
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Sequence 1, Application US/10138701

Sequence 1, Application US/10138701

GENERAL INFORMATION:

APPLICAMT: Human Genome Sciences, Inc. et al.

TITLE OF INVENTION: Staphylococcus aureus genes and polypeptides

FILE REFERENCE: P8484

CURRENT APPLICATION NUMBER: US/10/138,701

CURRENT FILING DATE: 2002-05-06

PRIOR APPLICATION NUMBER: US 60/098,964

PRIOR PILING DATE: 1998-09-01

PRIOR FILING DATE: 1998-09-01

PRIOR PILING DATE: 1996-01-05

PRIOR PILING DATE: 1996-01-05

PRIOR APPLICATION NUMBER: US 60/09/861

PRIOR APPLICATION NUMBER: US 60/09/861

PRIOR PILING DATE: 1999-08-31

PRIOR PILING DATE: 1999-08-31

PRIOR PILING DATE: 1997-10-20

NUMBER OF SEQ ID NOS: 61

SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 1092;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74 IGGITTATTAACTGITTATCCCCAAAGCACCATAATCAACGC 115
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Pred. No. 2.
                 TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8504
TELEPAX: (301) 309-8512
INFORMATION FOR SED ID NO: 205:
SEQUENCE CHARACTERISTICS:
LENGTH: 16397 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
CRGANISM: Staphylococcus aureus
US-10-138-701-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 20.4%;
1 Similarity 52.5%;
62; Conservative
REFERENCE/DOCKET NUMBER:
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Best Local Similarity
Matches 62, Conserva
                                                                                                                                                                                                                                  US-08-781-986A-205
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LENGTH: 1092
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Sequence 84, Application US/08599252 Patent No. 5705343 GENERAL INFORMATION: DENNIS T. APPLICANT: PEDER, JOHN N.

US-08-599-252-84/c

RESULT 30

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304 Tratitititiciagaaagircaaataigcititiaagigccaaaigcitigaaigaggc 245
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244 AAAATAAATTGTTTAATTATCCAGCTTTAGTATATCCAACACCATAATCAACCGTGGATT 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 TGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGG 61
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                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUW TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/599,252
FILING DATE: 09-FEB-1996
CLASSIFICATION: 435
                                                                                        METHOD TO DIAGNOSE HEREDITARY HEMOCHROMATOSIS
                                                                                                                                                                                                               STREET: 2000 Pennsylvania Ave. N.W., Suite 5500 CITY: Washington
                                                                                                                                                                                           MORRISON & FOERSTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
ATTORNET/AGENT INFORMATION:
NAME: WURASHIGE, KATE H.
REGISTRATION NUMBER: 29,959
REFRERNCE/DOCKET NUMBER: 9053-
TELECOMUNICATION INFORMATION:
TELEPHONE: (202) 887-1500
TELEFAX: 90-4030
INFORMATION FOR SEQ ID NO: 84:
SEQUENCE CHARACTERISTICS:
                    BRUCE E.
WINSTON J.
                                                               APPLICANT: WOLFF, ROGER K.
TITLE OF INVENTION: METHOD
TITLE OF INVENTION: HEMOCHH
NUMBER OF SEQUENCES: 124
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOR
ANDREAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122 GTTCTTATTGTTAA 135
                                                                      WOLFF, ROGER K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       184 CTGCACATTTGAA 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1320 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 50.7
Matches 68; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TOPOLOGY: linear
US-08-599-252-84
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                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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AV336201 AV336201 BZ035953 oeh99d03. BB230680 BB230680 BB118576 BB118576	BY480819 BY480819 AQ781019 HS 3169 B	BE289932 601089159 AI981576 pat.pk006 CC59179 CH240 416	AAG8653 EST110929 BB364524 BB364524 BB464866 BB464866 BA44666 BB464866	B1408249 B1408249 AQ430313 HS 5093 A BH002081 BMBAC02A1	COU40889 UI-M-FWU- BH830539 BACPP31-N	CE320783 tigr-g8s- AV258037 AV258037	BB026689 BB026689 BB697990 BB697990	CE301853 tigr-gss- BB431887 BB431887	BZ039148 IKA40D01. CR319158 Medicago AV333759 AV333759	BU094459 rf68h04.y BI254828 602974083 AG142826 Pan trogl	CG929327 MBEBC44TF BZ443978 BONII38TR AL098293 Drosophil	AV380299 AV380299 AZ090941 RPCI-23-4 AZS55231 RPCI-23-1	A4286822 RCLI-23-4 BH454485 BCHPH49TR BB003106 BB003106	AAB48004 OG/ZIIZ.B AASOGOOI DIOZCOS.B BYGEGGG OGAMINGTO	AV025500 AV02550 AV025570 AV025570 AQ09227 HS 5455 A	BU437903 G03210649 CF550786 AGENCOURT	CG380138 OGWKW16TV CK395548 AGENCOURT	CR007346 Forward s CC640698 OGLAO03TH	CC640706 OGLAO03TV CG376924 OG0AH57TH	CC377491 PUHLA09TB BB008494 BB008494	BB110376 BB110376 BB344600	BK657337 BK657337 BK657337	B1395688 B1395688 CD1000000000000000000000000000000000000	B0027415 UI-H-COO-	AL205156 Tetraodon BB007835 BB007835	CB710377 AMGNNUC:T BB045924 BB045924	CB779574 AMGNNUC:N CB699498 AMGNNUC:N BB635160 11102	AJ686825 AJ686825
23.6 206 1 AV336201 23.6 690 8 BZ035953 23.3 252 2 BB230680 23.3 270 2 BB118576	23.3 533 5 23.3 906 8	23.2 459 2 23.2 579 1 23.2 741 9	23.2 769 8 23.0 239 1 23.0 274 2 23.0 320 2	23.0 490 8 23.0 501 8	23.0 611 7 23.0 706 8	22.9 175 9 22.9 312 1	22.9 312 2 22.9 403 2	22.9 513 9 22.9 526 2	22.9 692 8 22.9 779 9 22.7 282 1	22.7 475 5 22.7 682 4 22.7 715 9	22.6 825 9 22.6 1050 8 22.6 1201 9	22.4 223 1 22.4 529 8 22.4 622 8	22.4 684 8 22.3 278 2	22.3 433 1	22.3 630 1 22.3 631 8	22.3 740 5 22.3 748 7	22.3 755 9 22.3 818 7	22.3 867 9 22.3 882 9	22.3 904 9 22.3 907 9	22.3 925 8 22.2 216 2	22.2 217 2	22.2 399 6	22.2 421 5	22.2 476 5	22.2 1033 9 22.0 268 2	22.0 290 6 22.0 305 2	22.0 388 6 22.0 400 6	22.0 450 1
C 26 32.8 C 26 32.8 27 32.4 28 32.4	30 32.	333	n	244	442	31. 31.	31.	3 3 3 5	31.1	31. 31.	31.1	33.	65 31. 66 31.		70 33	1 M M	mm	77 3	mm	30.	30.	9 9 9	87 30.	988	30.	92 30.	30.0	97 30.
5.1.6 Compugen Ltd.		; Search time 1743 Seconds (without alignments) 2905.980 Million cell updates/sec	ctgttcttattgttaacaca 139		residues	cers: 65645750							s predicted by chance to have a score of the result being printed,	score distribution.	•	به اذا	9	A 10	~ ~		~ ~			A			AG308530 Mus muscu CA791309 AGENCOURT	~ ~
GenCore version 5 Copyright (c) 1993 - 2004 C	search, using sw model	December 22, 2004, 01:40:57 ; (wi 290	-10-070-882A-2 9 gtgactctggtcgacgaact	IDENTITY NUC Gapop 10.0 , Gapext 1.0	32822875 segs, 18219865908 res	satisfying chosen parameters	.ength: 0 .ength: 200000000	ar a	tirst	<pre>jb_est1:* jb_est2:* jb_htc:*</pre>	Jb_est3:* Jb_est4:* Jb_est5:*	gb_est6:* gb_gss1:* gb_gss2:*	number of result n or equal to th	derived by analysis of the total	SOPPHIES OF	nengcn ub 	4.4. 0.1	0 0	335 2 448 5	570 8	605 4	ο φ τ	440	י גא ע	თ თ	0.00	728 9 AG308530 957 6 CA791309	N 60

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/dev grage="0 day neonate"
/ .3932
/note="unclassifiable"
         Submitted (16-APR-2002) Yoshihide Hayashizaki, The Institute of Bhysical and Chemical Research (RIREM), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, San-20045, Japan (E-mail:genome-res@gsc.riken.jp, Vokohama, URL:http://genome-gsc.riken.jp/, Tel:81-45-503-9222,
                                                                                                                                                                          cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
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CDNA clone K430350A22 3', mRNA sequence.
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Please visit our web site for further details.
URL:http://genome.gec.riken.jp/
URL:http://fantom.gec.riken.jp/
Location/Qualifiers
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Best Local Similarity 54.8%; Pred. No. 13;
Matches 69; Conservative 0; Mismatches
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/strain="C57BL/6J"
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Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

6 (bases 1 to 3932)

8 Adachi,J., Alawa,K., Akimura,T., Arakawa,T., Bono,H., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Harak,T., Harbizume,W., Hayashida,K., Hayaratu,N., Harancto,K., Hiranck,T., Hirozane,T., Katoh,H., Kawai,J., Kojima,Y., Itoh,M., Kagawa,I., Kasukawa,T., Katoh,H., Kawai,J., Kojima,Y., Muyazaki,R., Murata,M., Nishi,K., Nomura,R., Numazaki,R., Ohno,M., Ohsato,N., Okazaki,Y., Saito,R., Saitoh,H., Sakai,K., Sakazume,N., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Tagami,M., Tagawa,A., Takahashi,F., Takaku-Akahira,S., Muramatsu,M. and Hayashizaki,Y. Toya,T., Yasunishi,A., Direct Submission
                                                                                                                                                                                                                                          AK082454

3932 bp mRNA linear HTC 03-APR-2004
Mus musculus 0 day neonate cerebellum cDNA, RIKEN full-length
enriched library, clone:C230052F14 product:unclassifiable, full
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsunoto, H., Sakagucin, S., Ikegami, T., Kashiwagi, K., Yanedwoto, R., Matsunoto, H., Togawa, Y., Izawa, M., Ohara, B., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
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Nature 409, 685-690 (2001)
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Numata, K., Okido, T., Pavan, W.J., Pertea, G., Pesole, G.,
Ravasi, T., Redd, J.C., Redd, D.J., Ring, B.Z., Ringwald, M.,
Ravasi, T., Reed, J.C., Redd, D.J., Ring, B.Z., Ringwald, M.,
Sandelin, A., Schneider, C., Serolu, M., Shimada, K.,
Sultana, R., Takenaka, Y., Taylor, M.S., Teasdale, R.D., Tomita, M.,
Verardo, R., Wagner, L., Wahlested, C., Wang, Y., Watanabe, Y.,
Wells, C., Wilming, L.G., Wynshaw-Boris, A., Yanagisawa, M., Yang, I.,
Yang, L., Yuan, Z., Zavolan, M., Zhu, Y., Zimmer, A., Carninci, P.,
Hayatsu, N., Hirozane-Kishikawa, T., Komon, H., Nakamura, M.,
Sakazume, N., Sato, K., Shiraki, T., Kanwi, J., Aizawa, K.,
Arakawa, T., Pukuda, S., Hara, A., Hashizume, W., Imocani, K., Ishii, Y.,
Itoh, M., Xasunishi, A., Yoshino, M., Waterston, R., Lander, E.S.,
Rogers, J., Birney, E. and Hayashizaki, Y.
Analysis of the mouse transcriptome based on functional annotation
of 60,770 full-length cDNAs
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Aizawa,K., Akimura,T., Arakawa,T., Carninci,P., Fukuda,S.,
Hirozane,T., Imotani,K., Ishii,Y., Itoh,M., Kawai,J., Konno,H.,
Miyazaki,A., Murata,M., Nakamura,M., Nomura,K., Numazaki,R.,
Ohno,M., Sakai,K., Sakazume,N., Sasaki,D., Sato,K., Shibata,K.,
Shiraki,T., Tagami,M., Waki,K., Watahiki,A., Muramatsu,M. and
Hayashizaki,Y. Direct Submission
Computational Analysis of Full-Length Mouse cDNAs Compared with
Human Genome Sequences Mamm. Genome. 12, 673-677 (2011)
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes Genome Res. 10 (10), 1617-1630 (2000)
RIKEN integrated sequence analysis (RISA) system-1384-format
sequencing pipeline with 384 multicapillary sequencer. Genome Res.
10 (11), 1757-1771 (2000)
Computer-based methods for the mouse full-length cDNA
encyclopedia: real-time sequence clustering for construction of a
nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001)
cDNA library was prepared and sequenced in Mouse Genome
Encyclopedia Project of Genome Exploration Research Group in Riken
denomic Sciences Center and Genome Exploration Research Group Priving and Andreas A
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/tissue type="vial cortex"
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Please visit our web site (http://genome.gsc.riken.go.jp) for
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Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

1. (bases 1 to 204)

S. (bano, H., Aizawa, K., Akahira, S., Akiyama, J., Carninci, P., Endo, T., Fukunishi, Y., Hara, A., Hayatau, N., Hirozane, T., Hori, F., Fukuda, S., Fukuda, S., Kikuchi, Y., Itana, M., Kadota, K., Kagawa, I., Kai, C., Kawai, J., Kikuchi, N., Kojima, Y., Koya, S., Kusakabe, M., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y., Shibata, Y., Suguk, H., Takahashi, F., Tateno, M., Tominaga, N., Suzuki, H., Takahashi, F., Tateno, M., Tominaga, N., Tokota, T., Yoshiki, A., Washaba, S., Yamamura, T., Yashiki, A., Yoshino, M., Muramatsu, M. and Hayashizaki, Y. RIKEN Mouse ESTS (Konno, H., et al. 1999)

L. Unpublished (1999)
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Garninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                                               AV221406 AV211406 AV211406 AV211406 AV211406 AV211406 RIKEN full-length enriched, 0 day neonate skin Mus musculus cDNA clone 4632406L08 3', mRNA sequence.
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Fas: 81-45-503-9222
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sasaki,n, Izawa,M., Watahiki,M., Ozawa,K., Tanaka,T., Yoneda,Y.,
Matsuura,S., Carninci,P., Muramatsu,M., Okazaki,Y. and
Hayashizaki,Y.
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                                 274 TTCTTCAGACCACCCCACATGCTTGACAGTCCTTGTTGTCAGCGC 321
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/dev_stage="0 day neonate"
/lab_host="DH10B"
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/strain="C57BL/6J"
/db_xref="taxon:10090"
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31 CTGCCTCACCCTCTTTTCTTCAGAAGAGGGGTGACTATTTGTCTGGTTTATTAACTGTTT

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Computer-based methods for the mouse full-length cDNA
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Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 274)
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Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K.,
Carninci, P., Shibata, Y., Muramatsu, M. and Hayashizaki, Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi, K., Pujiwake, S., Inoue, K., Iogawa, Y., Izawa, M., Ohara, E.,
Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T.,
Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A.
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musculus cDNA clone G430026L09 3', mRNA sequence.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

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Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T.,
Carninci, P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayateu, N.,
Hirozane, T., Hori, F., Ishii, Y., Ishikawa, J., Ishikawa, T., Itoh, M.,
Izawa, M., Kadota, K., Kagawa, I., Kadi, C., Kawai, J., Kikuchi, N.,
Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C.,
Kusakabe, M., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H.,
Okazaki, Y., Ono, T., Owa, C., Saito, H., Sakai, C., Sato, K.,
Shibata, X., Shigemoto, Y., Shinagawa, A., Shiraki, T.,
Sogabe, Y., Sugahara, Y., Sungemoto, Y., Shinagawa, A., Shiraki, T.,
Watanabe, S., Yamamura, T., Yamanaka, I., Yano, R., Yasunishi, A.,
Yokota, T., Yoshida, K., Yoshiki, A., Yoshino, M., Muramatsu, M. and
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INTERIOR MOUSE ESTS (Konno, H., et al.)

Unpublished (2000)

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Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S.,
Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length
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encyclopedia: real-time sequence clustering for construction of nonredundant cDNA library. Genome Res. . 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
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/cell_line="RCB-0559 K-1.fl"
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Pred. No. 18;
                                                                                                                                                                                                                 1. .2/4
/organism="Mus musculus"
/--1 ------mRNA"
                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/strain="DDD"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Organ: spleen"
                                                                                                                                                                       Location/Qualifiers
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BB094276.1 GI:8739310
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Best Local Similarity 57.7%;
Matches 60; Conservative
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                                                                                                                                           e mouse tissues
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
1 (bases 1 to 335)
1 (bases 1 to 335)
1 (bases 1 to 335)
1 (bases 1 to 350)
1 (b
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cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh.M., Kitsunai, T., Akiyama, J., Shibata, K., Izawa, M., Kawai, J.,
Tomaru, Y., Carninci, P., Shibata, Y., Ozawa, Y., Muramatsu, M.,
Okazaki, Y. and Hayashizaki, Y.
Automated filtration-based high-throughput plasmid preparation
system. Genome. Res. 9 (5), 463-470 (1999)
Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
19-44 (1999)
19-44 (1999)
Flease visit our web site (http://genome.rtc.riken.go.jp) for
further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tab_nool_ interest full-length enriched, 12 days embryo, embryonic body between diaphragm region and neck" (note="Site 1: Sall; Site 2: BamH1; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKBN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was primed with a primer [5]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB222962
BB222962 RIKEN full-length enriched, adult male aorta and vein Mus
musculus CDNA clone A530080D21 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tissue_type="embryonic body between diaphragm region and
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Pred. No. 19;
0; Mismatches 44; Indels
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/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
1, .318
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Email: genome-res@gac.riken.jp, URL:http://genome.gac.riken.jp/
Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S.,
Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermocativation of thermolabile enzymes by
Trehalose and its application for the synthesis of full length
cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J.,
Okazaki,Y. and Hayashizaki,Y.
Automated filtration-based high-throughput plasmid preparation
system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
19-44 (1999)
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                                                                                                                                                                               Unpublished (2000)
Contact: Yoshihide Hayashizaki
Laboratory Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center (38C), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehino-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Fax: 81-45-503-9216
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Shibata,K., Shibata,Y., Shigemoto,Y., Shinagawa,A., Shiraki,T., Sogabe,Y., Sugahara,Y., Suzuki,H., Suzuki,H., Tagawa,A., Takahashi,F., Tominaga,N., Toya,T., Tsunoda,Y., Watahiki,A., Watanashi,F., Yamamura,T., Yamanaka,I., Yano,R., Yasunishi,A., Yokota,T., Yoshida,K., Yoshiki,A., Yokhida,K., Yoshiki,A., Yoshino,M., Muramatsu,M. and Hayashizaki,Y.
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further details.
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/dev_stage="adult"
/lab_host="DH10B"
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57.7%; Pred. No. 19;
ive 0; Mismatches
                                                                                                                                                       RIKEN Mouse ESTs (Konno, H., et al.)
Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
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/db_xref="taxon:10090"
/clone="A530080D21"
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/mol_type="mRNA"
/db_xref="taxon:10090"
/db_xref="taxon:10090"
/clone="1220162D12"
/clone=lib="RINM full-length enriched, pooled tissues, 16
days embryo, etc."
Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. Please visit our web site (http://genome.gsc.riken.go.jp) for
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1M0222H14R Mouse 10kb plasmid UUGC1M library Mus musculus genomic
clone UUGC1M0222H14 R, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Inter project tissues: (dev stage=16 days embryo, tissue_type=heart, sex=mix), (dev stage=16 days embryo, tissue_type=heart, sex=mix), (dev stage=17 days embryo, tissue_type=stant, sex=mix), (dev stage=17 days embryo, tissue_type=stomach, sex=mix), (dev stage=17 days embryo, tissue_type=stomach, sex=mix), (dev stage=17 days pregnant, adult_tissue_type=ammion, sex=female), (dev_stage=17 days embryo, tissue_type=ammion, sex=female),
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Fax: 801 585 7177
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Seq primer: CACAAAGAAAAAGCTAATGACC
Class: plasmid ends
High quality sequence stop: 570.
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24.2%; Score 33.6; D
Best Local Similarity 61.4%; Pred. No. 20;
Matches 54; Conservative 0; Mismatches
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S Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S., Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A., Schonbach, C., Gojobori, T., Baldarellia, M., Hill, D.P., Bult, C., Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Mateuda, H., Schonbach, C., Gojobori, T., Baldarellia, M., Hall, D.P., Bult, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gaasterland, T., Ghethia, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gasterland, T., Gassi, C., Godzik, A., Gough, J., Grimmond, S., Gustinotch, S., Hirokawa, N., Jackson, I.J., Jarvis, E.D., Kanaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.L., Konagaya, A., Kawaji, H., Kawasawa, Y., Lee, Y., Lehnard, B., Lyons, P.A., Maglott, D.R., Maltais, L., Marchionni, L., McKenzie, L., Miki, H., Nagashima, T., Numata, K., Okido, T., Pavan, W.J., Pertea, G., Pesole, G., Sandelin, A., Schneider, C., Sequile, C.A., Setou, M., Shimada, K., Shilain, R., Schneider, C., Sequile, C.A., Setou, M., Shimada, K., Verako, C., Wang, Y., Watanabe, Y., Wallining, L.G., Wanghaw-Boris, A., Yanagisawa, M., Yang, I., Wangt, C., Wallining, L.G., Wanghaw-Boris, A., Yanagisawa, M., Yang, I., Hayatsu, M., Sato, K., Shiraki, T., Kawai, U., Aizawa, K., Shiraki, T., Wangawa, T., Kawai, T., Kawai, W., Atakawa, T., Rukuda, S., Hara, A., Hashizume, W., Inoteni, K., Shiraki, T., Wangawa, M., Yasunishi, A., Yoshino, M., Waterston, R., Lander, E., Shiraki, T., Wangawa, K., Sakai, F., Sakai, F., Shiraki, Y., Rawai, W., Kasawa, T., Rukuda, S., Hara, A., Hashizume, W., Sakai, F., Shiraki, Y., Shiraki, Y., Shiraki, Y., Nagawa, K., Sakai, K.,
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Aizawa,K., Akimura,T., Arakawa,T., Carninci,P., Fukuda,S.,
Hirozane,T., Imotani,K., Ishii,Y., Itch,M., Kawai,J., Konno,H.,
Miyazaki,A., Murata,M., Nakamura,M., Nomura,K., Numazaki,R.,
Ohno,M., Sakai,K., Sakazume,N., Sasaki,D., Sato,K., Shibata,K.,
Shiraki,T., Tagami,M., Waki,K., Watahiki,A., Muramatsu,M. and
Hayashizaki,Y. Direct Submission
Computational Analysis of Full-Length Mouse cDNAs Compared with
Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)
Normalization and subtraction of captrapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
RIKEN integrated sequence analysis (RISA) system--384-format
sequencing pipeline with 384 multicapillary sequencer. Genome Res.
10 (11), 1757-1771 (2000)
Computer-based methods for the mouse full-length cDNA
encyclopedia: real-time sequence clustering for construction of a
nonredundant cDNA library Genome Res. 11 (2), 281-289 (2001)
cDNA library was prepared and sequenced in Mouse Genome
                                                                                                                           BY439440

BY439440 RIKEN full-length enriched, pooled tissues, 16 days embryo, etc. Mus musculus cDNA clone 1920162D12 3', mRNA sequence.
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Yoshihide Hayashizaki
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Fax: 81-45-503-9216
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Mus musculus
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TITLE

/organism="Mus musculus"

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Gaps

0; Gaps

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BM658097

MCR059H01 69977 Ice plant Lambda Uni-Zap XR expression library, 48 hours NaCl treatment prescreened for removal of highly abundant transcripts Mesembryanthemum crystallinum cDNA clone MCR059H01 5,
                                                                                                                                                                         /tissue_type="Leaf, 48 h 0.4M NaCl"
/dev_stage="Six week old"
/dev_stage="Six week old"
/clone_lib="Ice plant Lambda Uni-Zap XR expression
library, 48 hours NaCl treatment"
/note="Vector: Lambda Uni-Zap XR, Bluescript SK-; Site_l:
ECORI; Site_2: Xhol"
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Mesembryanthemum crystallinum
Bukaryota; Viridiplantee; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Caryophylales; Aizoaceae; Mesembryanthemum.
1 (bases 1 to 605)
Cushman, J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="leaf"
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/dev_stage="six-week-old"
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library, 48 hours
library, 48 hours
of highly abundant transcripts"
/note="Vector: Lambda Uni-Zap XR, Bluescript SK-; Site_1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44 ITTICTICAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCAC 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         147 triricarcacadadecadereacririceeringaaarirerrareeceraareaacaaareae 206
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Unpublished (1997)
Contact: Cushman JC
                                                                                                                                                                                                                                                                                                                                                                                   Score 33.6; DB 2; Length 590;
Pred. No. 21;
0; Mismatches 34; Indels (
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                                                                        organism="Mesembryanthemum crystallinum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104 CATAATCAACGCTAGACTGTTCTTATTG 131
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Plate: 059 row: H column: 01
Seg primer: T3 20mer
High quality sequence stop: 605.
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Universalty of Nevada
MS200, Remo, NV 89557-0014, USA
Tel: 775-784-1918
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/db_xref="taxon:3544"
/clone="MCR059H01"
                                                                                                /mol_type="mRNA"
/db_xref="taxon:3544"
/clone="L48-1355"
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                     Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                     Query Match 24.2%;
Best Local Similarity 61.4%;
Matches 54; Conservative
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PCR PRimers
POLYA=No.
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DEFINITION
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BM658097
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                        FEATURES
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                                                                                                                                                                                                                                               (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pwapto. [4] 4732114[9]A732072.1], a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli Xii0-Gold (Stratagene) cells and selected for ampicillin resistance."
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L48-1355T3 Ice plant Lambda Uni-Zap XR expression library, 48 hours NaCl treatment Mesembryanthemum crystallinum cDNA clone L48-1355,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mesembryanthemum crystallinum (common iceplant)
Mesembryanthemum crystallinum
Eukaryota, Viridiplantee, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons; core eudicots;
Caryophylales, Aizoaceae, Mesembryanthemum.
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                                                                                                                                                   /clone_lib="Mouse 10kb plasmid UUGCiM library"
/note=""Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
Laboratory Mouse DNA Resource
                                                                                                      /sex="Male"
/lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GTGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGG
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Plate: L48-14 row: E column: 7
Seg primer: T3
/mol_type="genomic DNA"
/strain="C57BL/6J"
                                                /db_xref="taxon:10090"
/clone="UUGC1M0222H14"
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Tel: 775-784-1918
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Unpublished (1997)
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Department of Biochemistry
University of Nevada
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BE131381
BE131381.1 GI:8578744
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Matches 51, Conserv
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PCR PRimers
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BE131381
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CA834105
MCSO2020H02_153488 Ice plant Lambda Uni-Zap XR expression library, 5 days 0.5 M NaCl treatment, Crassulacean acid metabolism, phase I (2 AM). Mesembryanthemum crystallinum cDNA clone MCS028H02 5, mRNA
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Caryophylales; Aizoaceae; Mesembryanthemum.

[ (bases 1 to 633)
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/clone lib="Ice plant Lambda Uni-Zap XR expression
library, 5 days 0.5 M Nac1 treatment, Crassulacean acid
metabolism, phase I (2 AM)."
/note="Vector: Lambda Uni-Zap XR, Bluescript SK-; Site 1:
EcoRI; Site_2: Xhol; Library construction was performed
according to Stratagene's recommended protocol for the
Lambda UniZapXR vector and cDNA synthesis kit."
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Mesembryanthemum crystallinum
Unpublished (1997)
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/organism="Mesembryanthemum crystallinum"
mol_type="mRNA"
/db xref="taxon:3544"
/clone="MCS028H02"
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                                               CATAATCAACGCTAGACTGTTCTTATTG 131
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High quality sequence stop: (Location/Qualifiers
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Tel: 775-784-1918
Fax: 775-784-1650
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Department of Biochemistry
University of Nevada
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BACKWARD: T7 21mer
Plate: 028 row: H
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Mesembryanthemum crystallinum
Mesembryanthemum crystallinum
Bukaryota, Viridiplantee, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Caryophyllales; Alzoaceae; Mesembryanthemum.
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/dev_stage="five-week-old"
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An expressed sequence tag database for the common ice plant, Mesembryanthemum crystallinum Unpublished (1997)
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                                                                                                    Length 605;
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24.2%; Score 33.6; DB 6; Length 625;
Best Local Similarity 61.4%; Pred. No. 21;
Matches 54; Conservative 0; Mismatches 34; Indels
                                                                                                                                                                 34; Indels
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                                                                                              Score 33.6; DB 4;
Pred. No. 21;
                                                                                                                                                          0, Mismatches
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Tel: 775-784-1918
Fax: 775-784-1650
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|db_xref="taxon:3544"
|clone="MCS039B06"
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EcoRI; Site 2: XhoI"
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Department of Biochemistry
University of Nevada
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                                                                                       Query Match
Best Local Similarity 61.4%;
Matches 54; Conservative
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Seg primer: T3 20mer
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BACKWARD: T7 21mer
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us-10-070-882a-2.rst

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CR303205 746 bp DNA linear GSS 28-FEB-2004 Medicago truncatula BAC ends cultivar Jemalong Al7 of Medicago truncatula, genomic survey sequence.
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Direct Submission
Submitted (25-FEB-2004) Genoscope - Centre National de Sequencage : Submitted (25-FEB-2004) Genoscope - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Coation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol type="maxon:3544"
/db_xref="taxon:3544"
/db_xref="taxon:3544"
/clone="type="last"
/tissue_type="last"
/dev stage="six-week-old"
/clone_lib="Ice plant Lambda Uni-Zap XR expression
library, 48 hours NaCl treatment prescreened for removal
of highly abundant transcripts"
/note="vector: Lambda Uni-Zap XR, Bluescript SK-; Site_1:
ECORI; Site_2: Xhol"
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Medicago truncatula
Sukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
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/mol type="genomic DNA"
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/db xref="taxon:380"
/clone lib="WHTB1"
/note="Vector: pindigoBAC ; Site_1: EcoRI ; Site_2: EcoRI
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Cushman, J.C.
An expressed sequence tag database for the common ice plant, Mesembryanthemum crystallinum
Mupublished Cushman JC
Contact: Cushman JC
Department of Biochemistry
University of Nevada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 699;
                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Mesembryanthemum crystallinum"
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Best Local Similarity 61.4%; Pred. No. 22;
Matches 54; Conservative 0; Mismatches
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Plate: 045 row: F column: 12
Seq primer: T3 20mer
High quality sequence stop: 699.
                                                                                                                                                             MS200, Reno, NV 89557-0014, USA
Tel: 775-784-1918
Fax: 775-784-1650
                                                                                                                                                                                                                                 Email: jcushman@unr.edu
PCR PRimers
FORWARD: T3 20mer
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CR303205.1 GI:44708225
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VERSION
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MCR045F12 25886 Ice plant Lambda Uni-Zap XR expression library, 48 hours NaCl treatment presented for removal of highly abundant transcripts Mesembryanthemum crystallinum cDNA clone MCR045F12 5,
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                                                                                                                                                      /tissue type="leaf" | dev_stage="six-week-old" | dev_stage="six-week-old" | /clone_lib="Ice_plant_Lambda_Uni-Zap_XR_expression | library, 48 hours NaCl treatment prescreened for removal of highly abundant transcripts" | note="Vector: Lambda_Uni-Zap_XR, Bluescript_SK-; Site_1: BCORI; Site_2: XhoI"
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Mesembryanthemum crystallinum
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots;
Caryophylales, Aizoaceae, Mesembryanthemum.
1 (bases 1 to 699)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44 TTTTCTTCAGAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCAC 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156 ritricarchandeaddranchriggirgaarirchiarcechancaachanche 215
hours NaCl treatment prescreened for removal of highly abundant
transcripts Mesembryanthemum crystallinum cDNA clone MCR046F12 5,
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                                                                                                                                                                                                                                                                                                     An expressed sequence tag database for the common ice plant, Mesembryanthemum crystallinum
Unpublished (1997)
Contact: Cushman JC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 24.2%; Score 33.6; DB 4; Length 674; 1 Similarity 61.4%; Pred. No. 22; 54; Conservative 0; Mismatches 34; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mesembryanthemum crystallinum"
                                                                                                                                          Mesembryanthemum crystallinum (common iceplant)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             High quality sequence stop: 674.
Location/Qualifiers
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Tel: 775-784-1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:3544"
                                                                                                                                                                                                                                                                                                                                                                                                   Department of Biochemistry
University of Nevada
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BM301422
BM301422.1 GI:18023797
                                                                                         BM301497.1 GI:18023872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: jcushman@unr.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BACKWARD: T7 21mer
Plate: 046 row: F c
Seq primer: T3 20mer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax: 775-784-1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCR PRimers
FORWARD: T3 20mer
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                                                mRNA sequence.
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Best Local Similarity
Matches 54; Conservat
                                                                                                                                                                                                                                                                               Cushman, J.C.
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DEFINITION
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BM301422
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Genoscope.
Direct Submission
Submitted (15-FEB2004) Genoscope - Centre National de Sequencage :
BP 191 91006 EVEX cedex - FRANCE (E-mail : segref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CG952370 889 bp DNA linear GSS 15-DEC-2003 MBEAT30TR mth2 Medicago truncatula genomic clone 15F12, genomic
                                                                                                     Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
rosids, eurosids I; Fabales, Fabaceae, Papilionoideae, Trifolieae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Vector: pIndigoBAC; Site_1: EcoRI; Site_2: EcoRI; Debelle F. and Chalhoub B.~Genoscope sequence ID: mte1-29K6FM1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             516 TGATTAAGAGAGAGATGATTAGTCAATTACATACACAATATATCCCAAAAGGAGCACCAT 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Medicago truncatula
Medicago truncatula
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rogids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50 TCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCACCATAAT 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 866;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9712 Medical Center Drive, Rockville, MD 20850, USA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 33.6; DB 9; Length 8 Pred. No. 23; 0; Mismatches 34; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
1. .889
/organism="Medicago truncatula"
/mol_type="genomic DNA"
/cultivar="genotype A17"
/db_xref="taxon:3880"
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                                                                                                                                                                                                                                                                                                                                                                                    /organism="Medicago truncatula"
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/culfivat="Venalong A17"
/db xref="taxon:3880"
/clone_lib="WTE1"
                                  GSS.
Medicago truncatula (barrel medic)
Medicago truncatula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   110 CAACGCTAGACTGTTCTTATTGTTAACA 137
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cdtown@tigr.org
Seg primer: CAGGAAACAGCTATGACC
Class: BAC ends.
              CR308064.1 GI:44854208
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il Similarity 61.4%;
54; Conservative (
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Contact: Chris Town
                                                                                                                                                                                                     (bases 1 to 866)
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Fax: 301-838-0208
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CG952370
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Best Local Similarity
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                                                                                                                                                                                      50 TCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCACCATAAT 109
                                                                                                                                                                                                                                     517 igattaadagagigatgattagicaattacatackaatatatcccaaaaggaggagcat 576
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Mesembryanthemum crystallinum
Mesembryanthemum crystallinum
Eukaryota, Viridiplantes, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Caryophyllales; Aizoacea; Mesembryanthemum.
I (bases I to 863)
Bohnert, H.J., Borchert, C., Brazille, S., Brooks, J., Eaton, M., Ferrea, H., Kawasaki, S., McCollough, A., Michalowski, C.B.,
Palacio, C., Scara, G., Wheeler, M. and Zepeda, G.R.
Functional Genomics of Plant Stress Tolerance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44 TITICITCAGAAAGAGGGGGACTATITGICTGGTTTATTAACTGTTTATCCCCAAAGCAC 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     168 TTTTCATCACAAAGCAGGTGACTTTGGGTTGAATTCTTATCCCTAATCAACAAATCAC
                                                                                                                                                 Gaps
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; Debelle F. and Chalhoub B.~Genoscope sequence ID mtel-21P8FM1"
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MO22B09 MO Mesembryanthemum crystallinum cDNA 5' similar to drought-induced protein dil9, mRNA sequence.
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/dev stage="5 weeks"
/done lib="MO"
/note="no stress"
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                                                                                                  Length 746;
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                                                                                                                                               34; Indels
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/mol_type="mRNA"
/db_xref="taxon:3544"
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Bio Sciences West room 513, Tucson, AZ 85721, USA
Tel: 520-621-7982
Fax: 520-621-1697
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                                                                                             24.2%; Score 33.6; DB 9;
61.4%; Pred. No. 22;
iive 0; Mismatches 34;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cbm@u.arizona.edu
An open reading frame exists.
Location/Qualifiers
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Contact: Michalowski, C.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BE035174.1 GI:8330298
                                                                                      Query Match
Best Local Similarity 61.4°
Matches 54; Conservative
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LOCUS DEFINITION

BE035174

ACCESSION VERSION KEYWORDS

SOURCE ORGANISM

REFERENCE AUTHORS TITLE JOURNAL COMMENT

Query Match

Best Loca Matches

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RESULT 17 CR308064

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FEATURES

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Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalla; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 521)
Mahalias, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T.,
Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, M.D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AG308530 728 bp DNA linear GSS 02-JUN-2004
Mus musculus molossinus DNA, clone:MSMg01-090D23.TJ, genomic survey
sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus molossinus
Mus musculus molossinus
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Mahairas GG, Wallace JC, Hood L
High Throughput Sequencing Center
University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3818
Fax: (206) 616-3887
Email: jwallace@u.washington.edu
Clones may be purchased from Research Genetics (info@resgen.com).
BAC end Web Server: http://www.htsc.washington.edu
Plate: 4825 row: N column: 24
                                                                                                                                                                                                                                                                          Sequence-tagged connectors: A sequence approach to mapping and scanning the human genome
Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
99380589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="CIT Approved Human Genomic Sperm Library |
/note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in
E-Coli DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 IGACTCTGGTCGACGAACTTAAATAATGCCTGCCTCACCCTCTTTTCTTCAGAAAGAGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'Match 24.0%; Score 33.4; DB 8; Length 521; Local Similarity 54.5%; Pred. No. 24; loservative 0; Mismatches 56; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/clone="Plate=4825 Col=24 Row=N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
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Location/Qualifiers
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                           AQ830244
AQ830244.1 GI:5796306
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                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Class: BAC ends
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         sequence.
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AG308530
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BE037111 1192 bp mRNA linear EST 07-JUN-2000 MPLSBO7 MP Mesembryanthemum crystallinum cDNA 5' similar to drought-induced protein di19, mRNA sequence.
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HS 4825 B2 G12 SP6E CIT Approved Human Genomic Sperm Library D Homo sapiens genomic clone Plate=4825 Col=24 Row=N, genomic survey
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1 Chases 1 to 1192)

Bohnert, H.J., Borchert, C., Brazille, S., Brooks, J., Eaton, M., Perrea, H., Kawasaki, S., McCollough, A., Michalowski, C.B., Palacio, C., Scara, G., Wheeler, M. and Zepeda, G.R.

Functional Genomics of Plant Stress Tolerance
                                                                                                                                                                                                                                               44 TTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGCAC 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172 TTTTTCATCACAAGCAGGTGACTTTGGGTTGAAATTCTTATCCCCTAATCAAATCAC 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44 TITICTICAGAAAGAGGGTGACTATITGTCTGGTTTATTAACTGTTTATCCCCAAAGCAC
                                                                                                                                                                     Gaps
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/clone lib="mth2"
/note="Vector: pBeloBAC11; Site 1: HindIII; Site_2:
HindIII; Cook, D.R. and Kim, D.J. unpublished"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="apical meristem and leaf primordia"
/dev_stage="6 weeks"
/clone_lib="Mp"
/note="3 d S00mM NaCl"
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                                                                                                                      24.2%; Score 33.6; DB 9; Length 889; 63.8%; Pred. No. 23;
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1 Similarity 61.4%; Pred. No. 24;
54; Conservative 0; Mismatches 34; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mesembryanthemum crystallinum"
|mol_type="mRNA"
|db_xref="taxon:3544"
                                                                                                                                                                     0; Mismatches 29; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bio Sciences West room 513, Tucson, AZ 85721, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mesembryanthemum crystallinum (common iceplant)
Mesembryanthemum crystallinum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: 520-621-7982
Fax: 520-621-1697
Email: cbm@u.arizona.edu
Insert Length: 1 Std Error: 0.00.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                            104 CATAATCAACGCTAGACTGT 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (2000)
Contact: Michalowski, C.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BE037111.1 GI:8332127
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                                                                                                                                                                     51; Conservative
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Matches 54; Conserv
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BB004186
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Martha Rebbert, Steven L. Klein, Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LIML)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: NCI-CGAP clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST 04-DEC-2002
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Menbibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.

1 (bases 1 to 957)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
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MAGE:5161843 5', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="mixture of kidney and spleen"
/clone_lib="MSMg01 Mouse Male BAC Library"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Mus musculus molossinus"
   BAC end Sequences of Library MSMg01
Unpublished
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Pred. No. 25;
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/sub_species="molossinus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:57486"
/clone="MSMg01-090D23.TJ"
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Unpublished (1997)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 205)

Konno, H., Alawa, K., Akahira, S., Akiyama, J., Arakawa, T., Carninci, P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N., Ishikawa, T., Ishikawa, T., Itoh, M., Izawa, M., Kadota, K., Kagawa, I., Ishikawa, J., Ishikawa, T., Itoh, M., Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kusakabe, M., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y., Ono, T., Owa, C., Saito, H., Sakai, C., Sato, K., Shibata, Y., Shibata, Y., Shibaqawa, A., Shiraki, T., Sogabe, Y., Sugahara, Y., Suzuki, H., Suzuki, H., Tagawa, A., Takahashi, F., Tominaga, N., Toya, T., Tsunoda, Y., Watanabe, S., Yamamura, T., Yamanaka, I., Yano, R., Yasunishi, A., Yokota, T., Yoshida, K., Yoshiki, A., Yoshino, M., Muramatsu, M. and Hayashizaki, Y.

Inpublished (2000)
Contact: Yoshinde Hayashizaki
                                                                                                                                                                                                                                                          /mol_type="mRNM"

(db_xref="taxon:835"

/clone="MRAME:516184"

/tissue_type="mbxyo" (stage 10)"

/lab_host="DH10B (phage-resistant)"

/clone lib="NICHD XGC Emb!"

/note="Vector: pcWV-SPORT6; Site=1: Not1; Site_2: Sal1;

Cloned unidirectionally. Primer: Oligo dT. Average insert
size 1.55 kb. Constructed by Life Technologies. Note: This
is a Xenopus Gene Collection (XGC) library."
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  917 TAAATTTTGCCGGGCCAGCCGTTTTTTTTTAAGAAGGGGGGACAATTTGTGGGGTTT 859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: LLAM11401 row: j column: 20 High quality sequence stop: 360.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
24.0%; Score 33.4; DB 6;
Best Local Similarity 72.9%; Pred. No. 26;
Matches 43; Conservative 0; Mismatches 16;

    .957
    /organism="Xenopus laevis"

                                                                                                                                                       Location/Qualifiers
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BB004186.1 GI:8093634
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Fax: 81-45-503-9216
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467 bp DNA linear GSS 12-JUN-2003 CH240 59A23.TV CHORI-240 Bos taurus genomic clone CH240 59A23, genomic survey sequence.
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A Cattle-Human Comparative Map Built with Cattle BAC-ends and Human
                                                                                                                                                                                                                                                                                                                                                                                            Inote="Site 1: Sal1; Site 2: BamH1; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35 CTCACCCTCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCC 94
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Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303, 19-44 (1999)
Please visit our web site (http://genome.rtc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                   clone_lib="RIKEN full-length enriched, 10 day neonate
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Pred. No. 23;
0; Mismatches 43; Indels (
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                                                                                                                                                                                                                                                                                         /tissue_type="skin"
/dev_stage="10 days neonate"
/lab_host="DH10B"
                                                                                                                                              1. .205
/organism="Mus musculus"
                                                                                                                                                                                     /mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
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Unpublished (2003)
Contact: Harris Lewin
Department of Animal Sciences
                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                    /clone="4732458014"
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                                                                                                                                                                                                                                                                            /sex="mixed"
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Bos taurus
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1. (Dasas 1 to 206)

S. Konno, H., Alzawa, K., Akahira, S., Akiyama, J., Carninci, P., Endo, T.,
Fukuda, S., Fukunishi, Y., Hara, A., Hayateu, N., Hirozane, T., Hori, F.,
Ishii, Y., Ishikwa, T., Itoh, M., Izawa, M., Kadaca, K.,
Kai, C., Kawai, J., Kikuchi, N., Kojima, Y., Koya, S., Kusakabe, M.,
Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y.,
Owa, C., Ozawa, Y., Salto, H., Sano, M., Sato, K.,
Shibata, Y., Shigemoto, Y., Shiraki, T., Sogabe, Y., Sugahara, Y.,
Suzuki, H., Suzuki, H., Takamashi, F., Tateno, M., Tominaga, N.,
Yokota, T., Yoshiki, A., Watanabe, S., Yamamura, T., Yasunishi, A.,
Yokota, T., Yoshiki, A., Yoshino, M., Muramatsu, M. and Hayashizaki, Y.
RIKEN Mouse ESTS (Konno, H., et al. 1999)
                                                                                                                                                                    (http://www.chori.org/bacpac/bovine240.htm). For BAC library availability, please contact Pieter de Jong (pdejong@mail.cho.org). Clones may be purchased from BACPAC Resources (http://www.chori.org/bacpac/ordering information.htm). This work was undertaken as part of the International Bovine BAC Mapping Consortium (IBBMC) by by University of Illinois at Urbana champaign, USA with funds provided by grant No. AG202-34480-11828 from USDA-CSREEs and AG99-35205-8534 from USDA/NRI (Livestock Genome Sequencing Initiative)
Plate: 59 row: A column: 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="CHORI-240"
/note="Vector: pTARRAG1.3; Site 1: MboI; Site 2: Mbc
Hereford bull Li Domino 99375; CHORI-240 Bovine BAC
library (Male) produced by Pieter de Jong"
                                                                                                                Email: h-lewin@uiuc.edu
Clones are derived from the bovine BAC library CHORI-240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 8; Length 467;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78 TTATTAACTGTTTATCCCCAAAGCACCATAATCAACG 114
University of Illinois at Urbana Champaign
1201 W. Gregory Dr., Urbana, IL 61801, USA
TTE1: 217 333 5998
Fax: 217 244 5617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 23.7%; Score 33; DB 8
1 Similarity 58.8%; Pred. No. 31;
57; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="genomic DNA"
/strain="breed: Hereford"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:9913"
/clone="CH240_59A23"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seq primer: T7
Class: BAC ends.
Location/Qualifiers
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/cell_type="Blood"
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Best Local Similarity
Matches 57; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
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AV336201
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KEYWORDS
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us-10-070-882a-2.rst

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23.6%; Score 32.8;
56.5%; Pred. No. 38;
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High quality sequence stop: 551
Location/Qualifiers
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          BZ035953.1 GI:23614280
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                                                 Brassica oleracea
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nes 61; Conservative
                                                                                                                                                                                                                                                                                                                                                                 Class: shotgun
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                  The Institute of Physical and Chemical Research (RIKEN)
7-22 Subhiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-922
Fax: 81-45-503-9216
Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
Matsuura,S., Zawa,M., Watahiki,M., Ozawa,K., Tanaka,T., Yoneda,Y.,
Hayashizaki,Y. and
                                                                                                                                                           Transcriptional sequencing: A method for DNA sequencing using RNA polymerase. Proc. Natl. Acad. Sci. U.S.A. 95 (7), 3455-3460 (1998) Itoh, M., Kitsunai, T., Akiyama, J., Shibata, K., Izawa, M., Kawai, J., Tomaru, Y., Carninci, P., Shibata, Y., Ozawa, Y., Muramatsu, M., Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999) Carninci, P. and Hayashizaki, Y. Graninci, P. and Hayashizaki, Y. 19-464 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vector: a modified pBluescript KS(+) after bulk excision from Lambda FLC I. Cloning sites, 5' end: Sall; 3' end: BamHI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>.</u>
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                                                                                                                                                                                                                                                                                                                                                                         Please visit our web site (http://genome.rtc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Site 1: Sal1; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 ATAGATGCTTCAGGCTTTTCTTCTGAGCTTTTCTCCCACTTTTCAGATTTAACT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.6%; Score 32.8; DB 1; Length 206; 56.5%; Pred. No. 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        47; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'tissue type="medulla oblongata"
'dev_stage="adult"
'lab_host="DH10B"
Sciences Center(GSC), Yokohama Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 31;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="6330583F07"
                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sex="male"
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                                                                                                                                                                                                                                                                                                                                                                                                                                  .206
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Matches 61; Conserv
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source

FEATURES

BZ035953 690 bp DNA linear GSS 09-OCT-2002 oeh99403.gl B.oleracea002 Brassica oleracea genomic, genomic survey

BZ035953

RESULT 26 BZ035953/c DEFINITION ACCESSION

Query Match

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EMERGIUSE

EMERGIUS

EMERG
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Brassica oleracea
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
rosids, eurosids II, Brassicales, Brassicaceae, Brassica.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic DNA"
//mol_type="genomic DNA"
//mol_type="genomic DNA"
//clone lib="backon:3712"
//clone lib="backon:3712"
//clone lib="Bootwars"
//note="Vector: pOTw13; Whole genome shotgun library from flowering buds. DNA was purified from a crude nuclear prep using Brassica oleracea 701000H3 buds provided by Thosmas Osborn at the University of Wisconsin. Genomic DNA was provided by Pablo Rabinowicz (CSHL) and the Sequencing Center."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        610 ccaccacarcricrirgrirgaaaaaaagrrirrccrirircraaaaacargarcaraa 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30 CCTGCCTCACCCTCTTTTTTTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTT
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                                                                                                                                                                                                                                      1 (bases 1 to 690)
Delehaunty,K., Fewell,G., Fulton,L., McCombie,W.R., Miner,T., Nash,W., Rabinowicz,P.D. and Wilson,R.K.
Whole genome shotgun reads from Brassica oleracea
Contact: Richard K. Wilson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome Sequencing Center
Washington University School of Medicine
Baal: submissions@watson.wustl.edu
Plate: oeh99 row: d column: 03
Seq primer: -28RPpOT reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .690
/organism="Brassica oleracea"
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TITLE JOURNAL

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Mammalish Succentria; Sciencegiachi; Mullidae; Mullinae; Mullinae;
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Carninci, P., Nishiyama, Y., Westover, A., Itoh, M., Nagaoka, S.,
Sasaki, N., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y.
Thermostabilization and thermoactivation of thermolabile enzymes by
Trehalose and its application for the synthesis of full length
cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh, M., Kitsunai, T., Akiyama, J., Shibata, K., Izawa, M., Kawai, J.,
Okazaki, Y. and Hayashizaki, Y.
Automated filtration-based high-throughput plasmid preparation
system. Genome Res. 9 (5), 463-470 (1999)
Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
19-44 (1999)
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           BB118576 RIKEN full-length enriched, adult male urinary bladder Mus
musculus cDNA clone 9530066116 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_lib="RIKEN full-length enriched, adult male urinary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Site 1: Sal1; Site 2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was primed with a primer [5.
                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGAGAGAGGATCCAAGAGCTCTTTTTTTTTTTTTVN 3'], cDNA was
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/dev_stage="adult"
/lab_host="DH10B"
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/db_xref="taxon:10090"
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1. .270
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                                                                                                                                                                                                      Mus musculus (house mouse)
                                                                                           BB118576
BB118576.1 GI:8771144
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                                                                                                                                                                                                                                                  Mus musculus
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                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
               DEFINITION
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JOURNAL
COMMENT
                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                             REFERENCE
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                                                                                                                                                                                                                                                                                                                                                                                 Exa: 81-45-503-9216

Email: genome-resegac.riken.jp, URL:http://genome.gsc.riken.jp/
Carninci,P., Nishiyama,Y., Mestover,A., Itoh,M., Nagaoka,S.,
Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile ensymes by trehalose and its application for the synthesis of full length CDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J., Okazaki,Y. and Hayashizaki,Y., Ozawa,Y., Muramatsu,M., Okazaki,Y. and Hayashizaki,Y., Ozawa,Y., Muramatsu,M., System. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303, 19-44 (1999)
Please visit our web site (http://genome.rtc.riken.go.jp) for further details.
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                                                                                                                                                                                                                                                                         The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Site_1: Sal1; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN Division of Experimental Animal Research in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56 criccrecagericricererrergacerrrereceaerierreagarirerreacriciri 115
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Yokota,T., Yoshida,K., Yoshiki,A., Yoshino,M., Muramatsu,M. and
Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="RIKEN full-length enriched, 3 days neonate
thymus"
                                                                                                                                                                                                  Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31 CTGCCTCACCCTCTTTTCTTCAGAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /dev_stage="3 days neonate"
/lab_host="DH108"
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1 Similarity 56.6%; Pred. No. 42;
60; Conservative 0; Mismatches
                                                                                   RIKEN Mouse ESTs (Konno, H., et al.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:10090"
/clone="A630028L21"
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                                                                                                                                                              Contact: Yoshihide Hayashizaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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                                                                                                                               Unpublished
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PEATURES

RESULT 28 BB118576

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With Metacous; Chordata; Craniata; Vertebrata; Euteleostomi; Mus musalia; Eutheria; Rodentia; Sciurognathi; Muridae; Muzinae; Mus. 1 (Dasaro, N. 533)

Okazaki, Y.; Furuno, M.; Kasukawa, T.; Adachi, J.; Bono, H.; Kondo, S.; Kiyosawa, H.; Yagi, K.; Tomaru, Y.; Hasegawa, Y.; Nogami, A.; Schonbach, C.; Gojobori, T.; Daldarelli, R.; Hill, D. P.; Bult, C.; Hume, D.A.; Quackenbush, J.; Schrimi, L.M.; Kanapin, A.; Matsuda, H.; Chochia, C.; Corbani, L.E.; Cousins, S.; Dalla, E.; Dragani, T.A.; Fletcher, C.F.; Forrest, A.; Frazer, K.S.; Gasterland, T.; Gariboldi, M.; Gissi, C.; Godzik, A.; Gasterland, T.; Gariboldi, M.; Gissi, C.; Godzik, M.; King, B.L.; Konagaya, A.; Kawaji, H.; Kawasawa, Y.; Kedzierski, R.M.; King, B.L.; Konagaya, A.; Kawaji, H.; Kawasawa, Y.; Kedzierski, R.M.; King, B.L.; Konagaya, A.; Marchionni, L.; Mockenzie, L.; Miki, H.; Nagashima, T.; Reed, J.C.; Reed, J.C.; Read, J.C.; Ming, B.L.; Ringwald, M.; Sandelin, A.; Schneider, C.; Semple, C.A.; Setou, M.; Shimada, T.; Reed, J.C.; Red, J.D.; Reing, B.L.; Ringwald, M.; Sultana, R.; Takenaka, Y.; Taylor, M.S.; Marchionni, L.; Mayasaki, M.; Sakazume, N.; Sacheider, C.; Semple, C.A.; Setou, M.; Shimada, K.; Sanaka, Y.; Watsunbe, R.; Takenaka, Y.; Taylor, M.S.; Tamer, A.; Carninci, P.; Hayatsu, N.; Hirozane-Kishikawa, T.; Konno, H.; Nakamura, M.; Yang, I.; Yang, I.; Yuan, Z.; Zavolan, M.; Zhu, Y.; Konno, H.; Nakamura, M.; Sakazume, N.; Sato, K.; Shiraki, T.; Waki, K.; Kawai, J.; Aizawa, K.; Arakawa, T.; Fukuda, S.; Hara, A.; Hashizune, W.; Indcani, R.; Arakawa, T.; Fukuda, S.; Hara, A.; Hashizune, W.; Indcani, R.; Analysis of the mouse transcriptome based on functional annotation of 60, 70, 70 full-length honas
533 bp mRNA linear EST 02-JAN-2003 cDNA clone G370145K21 3', mRNA sequence.

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Fax: 81-45-503-9216
Fax
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Hirozane, T., Imotani, K., Ishii, Y., Itoh, M., Kawai, J., Konno, H., Miyazaki, A., Murata, M., Nakamura, M., Nomura, K., Numazaki, R., Ohno, M., Sakaii, K., Sakazume, N., Sasaki, D., Sato, K., Shibata, K., Shizaki, T., Tagami, M., Waki, K., Watahiki, A., Muramatsu, M. and Hayashizaki, Y. Direct Submission
Computational hallysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences Mam. Genome. 12, 673-677 (2001)
Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (10), 157-1771 (2000)
Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001)
CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Res. 11 (2), 281-289 (2001)
Division of Experimental Animal Research in Riken contributed to
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906 bp DNA linear GSS 02-AUG-1999
HS_3169_B1_A06_T7C CIT Approved Human Genomic Sperm Library D Homo
saplens genomic clone Plate=3169 Col=11 Row=B, genomic survey
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Denise Larson (Division of Intramural Research Genetic Disease Research Branch National Human Genome Reseach Institute, National Institutes of Health (NIH) Building: 49, Room 4AB2 49 Convent Driv MSC 4472 Bethesda, Maryland U.S.A) whose assistance we gratefully
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42 TCTTTTCTTCAGAAAGAGGGTGACTATTTGTCTGGTTTATTAACTGTTTATCCCCAAAGC 101
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (Bases 1 to 966)
Mahairas, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               prepare mouse tissues.
Cells were provided by Drs. William J Pavan, Stacie Loftus, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cell_type="B16 F10Y cells"
/clone_lib="RIKEN full-length enriched, B16 F10Y cells"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Please visit our web site (http://genome.gsc.riken.go.jp) for
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Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
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/strain="C57BL/6J"
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Contact: Mahairas GG, Wallace JC, Hood L
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High Throughput Sequencing Center
University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
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Emai: jwallace@u.washington.edu
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BAC end Web Server: http://www.htsc.washington.edu
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BAC end Web Server: http://www.htsc.washington.edu
Clones may be column: 11
Clones may be purchased from Research Genetics (info@resgen.com).
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/note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in
E-Coli DH10B"
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                     MEDLINE
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